POLITICAL SCIENCE
Subject Code-028
Classes-XI & XII (2026-2027)

RATIONALE

A discipline of Social Science, Political Science deals with understanding the social structures and methods used to manage a government or State. It also encompasses the historical, philosophical, constitutional, and legal foundation of the political system. It further provides scope to identify the political values and ideas, governing institutions and their policy making process. The subject enhances the ability to address the functions and processes of government and politics in international, national, and state levels. It ensures that students acquire citizenship skills and engage as active citizens by appreciating human diversity. This subject is interdisciplinary by nature and draws upon other social disciplines or branches of knowledge and there by influenced by them in many ways. At Senior Secondary level, curriculum of Political Science is organised in a systematic manner to facilitate students to have an understanding of political ideas, ideologies, institutions, policies, processes, and behaviour, as well as groups, classes, government, law, peace and war which are the bedrock of human society and polity. The contents develop knowledge about current and past political events across the world and also enrich student's writing, communication, data analysis skills. An earnest effort is directed towards laying the foundation for a serious engagement with the discipline and developing competencies that prepare students for higher education, learning, and acquiring knowledge.

AIMS AND OBJECTIVES

1. Indian Constitution at Work:

- Understand the historical circumstances and the processes in which the Constitution was drafted.
- Be familiar with the diverse perspectives that guided the makers of the Indian Constitution.
- Analyse the working of the three pillars of democracy: Legislature, Executive, and Judiciary and their role with changing times.
- Identify the key features of the Indian Constitution and compare these to other constitutions in the world.

2. **Political Theory:**

- Recognise the ideas, concepts, and values inherent in the political life of a citizen.
- Systematic reflection and critical analysis of the political phenomenon.
- Provide clarity on what is 'political' in relation to 'social', 'economic', 'moral', and the like.
- Augment the ability of students to build a good state in a good society, and create processes, procedures, institutions, and structures which could be rationally achievable.

3. **Contemporary World Politics**

- Enable an understanding of the nature of political interactions amongst the sovereign states in the World.
- Trace the key political events and processes in the post-cold war era.
- Analyse the all-encompassing impact of various global institutions, processes, and events.
- Promote international understanding and respect for humanity.

4. **Politics in India since Independence**

- Understand and analyse constitutional institutions and their working in the post-independence era.
- Appreciate the contribution of political leaders in Nation Building.
- Develop the capacity to link Government structure, processes, and their policies with contemporary political realities.
- Acquaint the students to the changing trends and developments in India.

CLASS XI
COURSE STRUCTURE

Chapter No.	Chapter Name	Marks
	PART A **INDIAN CONSTITUTION AT WORK**	
1	Constitution: Why and How?	8
2	Rights in the Indian Constitution	
3	Election and Representation	6
4	Executive	12
5	Legislature	
6	Judiciary	
7	Federalism	6
8	Local Governments	4
9	Constitution as a Living Document	4
10	The Philosophy of the Constitution	
	Marks allotted to Indian Constitution at Work	**40**
	PART B **POLITICAL THEORY**	
1	Political Theory: An Introduction	4
2	Freedom	12
3	Equality	
4	Social Justice	6
5	Rights	4
6	Citizenship	8
7	Nationalism	
8	Secularism	6
	Marks allotted for Political Theory	**40**
	Total	**80**

CLASS XI

COURSE CONTENT

Chapter No. and Name	Learning Outcomes with Specific Competencies
1- Constitution: Why and How? a) Why do we need a Constitution? • Constitution allows coordination and assurance • Specification of decision-making powers • Limitations on the powers of government • Aspirations and goals of a society • Fundamental identity of a people b) The authority of a Constitution • Mode of promulgation • The substantive provisions of constitution • Balanced institutional design c) How was the Indian Constitution made? • Composition of the Constituent Assembly • Procedures • Inheritance of the nationalist movement • Institutional arrangements d) Provisions adapted from Constitutions of different countries	**Students will be able to:** • Appreciate the need fora Constitution. • Understand the historical processes and the circumstances in which the Indian Constitution was drafted. • Critically evaluate how constitutions, govern the distribution of power in society. • Analyse the ways in which the provisions of the Constitution have worked in real political life.
2- Rights in the Indian Constitution a) The importance of rights • Bill of Rights b) Fundamental rights in the Indian Constitution • Right to Equality • Right to Freedom • Right against Exploitation • Right to Freedom of Religion • Cultural and Educational Rights • Right to Constitutional Remedies c) Directive principles of state policy • What do the directive principles contain? d) Relationship between fundamental rights and directive principles	**Students will be able to:** • Analyse the working of the Constitution in real life • Learn to respect others, think critically, and make informed decisions • Identify violations of the rights to equality and freedom in the society around them • Justify the need for reasonable restrictions on the rights guaranteed. • Use freedom of expression to advocate for ensuring rights is given to people around them.

3. Election and Representation a) Elections and democracy b) Election system in India • First Past the Post System • Proportional Representation c) Why did India adopt the FPTP system? d) Reservation of constituencies e) Free and fair elections • Universal franchise and right to contest • Independent Election Commission f) Electoral Reforms	**Students will be able to:** • Identify different types and methods of election • Develop critical thinking about the role of various stakeholders in ensuring free and fair elections. • Demonstrate the innate role played by Election Commission • Compare election systems of different countries of the world.
4. Executive a) What is an executive? b) What are the different types of executives? c) Parliamentary executive in India • Power and position of President • Discretionary Powers of the President d) Prime Minister and Council of ministers e) Permanent Executive: Bureaucracy	**Student will be able to:** • Recognise the meaning of Executive. • Compare and contrast the Parliamentary and Presidential Executive. • Analyse the composition and functioning of the executive. • Know the significance of the administrative machinery.
5. Legislature a) Why do we need a parliament? b) Why do we need two houses of parliament? • Rajya Sabha • Lok Sabha c) What does the parliament do? • Powers of Rajya Sabha • Special Powers of Rajya Sabha d) How does the parliament make laws? e) How does the parliament control the executive? f) What do the committees of parliament do? g) How does the parliament regulate itself?	**Students will be able to:** • Describe the law- making process in India. • Differentiate between the powers and functions of Lok Sabha and Rajya Sabha. • Examine the parliamentary control over the Executive. • Analyse the role of Parliamentary committees for the success of Indian democracy.
6. Judiciary a) Why do we need an independent judiciary? • Independence of Judiciary • Appointment of Judges • Removal of Judges b) Structure of the Judiciary	**Students will be able to:** • Identify the different aspects which makes the Judiciary independent • Compare and contrast the different jurisdictions

c) Jurisdiction of supreme Court • Original Jurisdiction • Writ Jurisdiction • Appellate Jurisdiction • Advisory Jurisdiction • Judicial Activism d) Judiciary and Rights • Judiciary and Parliament	• Analyse the reasons why Judiciary has become proactive. • Examine the reasons for the conflicts between the judiciary and parliament with respect to Constitutional Amendments.
7. Federalism a) What is Federalism? b) Federalism in the Indian Constitution • Division of Powers c) Federalism with a strong central government d) Conflicts in India's federal system • Centre-State Relations • Demands for Autonomy • Role of Governors and President's Rule • Demands for New States • Interstate Conflicts e) Special provisions • Jammu and Kashmir	**Students will be able to:** • Explain the basic features of a federation. • Identify the different levels of the government &subjects on which the union and state governments can make laws. • Discuss the various constitutional provisions that led to a strong Centre in India.
8. Local Governments a) Why local governments? b) Growth of Local Government in India • Local Governments in Independent India c) 73rd and 74thamendments d) 73rd Amendment • Three Tier Structure • Elections • Reservations • Transfer of Subjects • State Election Commissioners • State Finance Commission e) 74th Amendment • Implementation of 73rdand 74th Amendments	**Students will be able to:** • Understand the Panchayati Raj system of local government in India, its emergence and significance • Identify the objectives, functions and sources of income of rural and urban local government bodies • Justify the significance of 73rd and 74th constitutional amendments • Acknowledge and examine the significance of decentralization • Introspect and realise the need to empower local government bodies
Constitution as a Living Document a) Are constitutions static? b) How to amend the constitution? c) Why have there been so many amendments?	**Students will be able to:** • Analyse the working of the Constitution. • Appreciate why the Constitution is called a Living Document

9. Contents of amendments made so far • Differing Interpretations • Amendments through Political Consensus • Controversial Amendments e) Basic structure and evolution of the constitution f) Constitution as a Living Document • Contribution of the Judiciary • Maturity of the Political Leadership	Students will be able to: • Know the various amendments that have taken place and the controversies raised. •
10. The Philosophy of the Constitution a) What is meant by philosophy of the constitution? • Constitution as Means of Democratic Transformation b) Why do we need to go back to the Constituent Assembly? c) What is the political philosophy of our constitution? • Individual freedom • Social Justice • Respect for diversity and minority rights • Secularism • Universal franchise • Federalism • National identity d) Procedural Achievements e) Criticisms • Limitations	**Students will be able to:** • Appreciate the philosophical vision of our Constitution. • Recognise the core features of the Indian Constitution. • Evaluate the strengths and limitations of the Constitution.
PART B **POLITICAL THEORY**	
1. Political Theory: An Introduction a) What is politics? b) What do we study in political theory? c) Putting Political theory into practice d) Why should we study political theory?	**Students will be able to:** • Define the term politics and identify various political principles. • Explain the innate ideas of various Political theories. • Appreciate the contribution of Political Thinkers

2. Freedom a) The Ideal of freedom b) The sources of Constraints-Why do we need constraints? c) The Harm Principle d) Negative and Positive liberty	**Students will be able to:** • Appreciate the ideal of freedom. • Critically evaluate the dimensions of negative and positive liberty. • Demonstrate spirit of enquiry • Explain the ideas introduced by J.S. Mill in Harm Principle. • Assess the possible limitations on freedom resulting from the social and economic structures of society.
3. Equality a) Why does equality matter? • Equality of opportunities • Natural and Social Inequalities b) Three dimensions of equality c) Feminism, Socialism d) How can we promote equality?	**Students will be able to:** • Understand the moral and political ideals of equality. • Assess how equality is perceived through different ideologies • Recognise the means and methods to promote equality. • Evaluate the possible solutions to minimise inequality.
4. Social Justice a) What is Justice? • Equal Treatment for Equals • Proportionate Justice • Recognition of Special Needs b) Just distribution c) John Rawls Theory of Justice d) Pursuing Social Justice e) Free Markets versus State Intervention	**Students will be able to:** • Classify the different dimensions of justice. • Appreciate the measures taken by the government of India to secure social justice. • Enlist the basic minimum requirements of people for living a healthy and productive life. • State John Rawls' theory of veil of ignorance.
5. Rights a) What are Rights? b) Where do rights come from? c) Legal rights and the state d) Kinds of rights e) Rights and responsibilities	**Students will be able to:** • Define rights • Identify the need for rights and its importance to mankind. • why rights need to be sanctioned by law. • Describe the features of different kinds of rights.
6. Citizenship a) Introduction b) Full and equal membership c) Equal Rights d) Citizen and Nation e) Universal Citizenship f) Global Citizenship	**Students will be able to:** • Explain the meaning of citizenship. • Contribute to meaningful discussion on ways of granting citizenship. • Discuss the probable solutions or alternatives to solve citizenship issue • Analyse the problems to be surmounted to strengthen links between the people and governments

7. Nationalism a) Introducing Nationalism b) Nations and Nationalism • Shared Beliefs and History • Shared National Identity c) National self-determination d) Nationalism and Pluralism	**Students will be able to:** • Understand the concepts of nation and nationalism • Assess the strengths and limitations of nationalism. • Identify and build an understanding on the factors related to creation of collective identities • Examine the concept of national self-determination • Acknowledge the need to make nations more democratic and inclusive
8. Secularism a) What is Secularism? b) Inter-religious Domination c) Intra-religious Domination d) Secular State • The western model of secularism • The Indian model of secularism e) Criticisms of Indian secularism • Western Import and Minoritism • Interventionist • Vote Bank Politics	**Student will be able to:** • Define Secularism. • Differentiate between Inter-religious and Intra-Religious Domination. • Recognise the concept of a Secular State. • Compare Western and Indian Model of Secularism. • Make an appraisal of Indian Secularism.

Prescribed Textbooks:

1. Indian Constitution at Work, Class XI, Published by NCERT
2. Political Theory, Class XI, Published by NCERT
3. Added Reference Material available with the document in the Annexure

Note: The above textbooks are also available in Hindi and Urdu versions.

CLASS XII

COURSE STRUCTURE

Chapter No.	Chapter Name	Marks Allotted
PART A-CONTEMPORARY WORLD POLITICS		
1	The End of Bipolarity	6
2	Contemporary Centres of Power	6
3	Contemporary South Asia	6
4	International Organizations	6
5	Security in the Contemporary World	6
6	Environment and Natural Resources	6
7	Globalisation	4
	PART A - Total	**40**
PART B-POLITICS IN INDIA SINCE INDEPENDENCE		
1	Challenges of Nation-Building	6
2	Era of One-Party Dominance	4
3	Politics of Planned Development	2
4	India's External Relations	6
5	Challenges to and Restoration of the Congress System	4
6	The Crisis of Democratic Order	4
7	Regional Aspirations	6
8	Recent Developments in Indian Politics	8
	PART B - Total	**40**
	TOTAL	**80**

CLASS XII
COURSE CONTENT

Chapter No. and Name	Learning Outcomes with Specific Competencies
1. The End of Bipolarity Topics to be focused: a) The Soviet System b) Gorbachev and the disintegration c) Causes and Consequences of disintegration of Soviet Union d) Shock Therapy and its Consequences e) New entities in world politics • Russia • Balkan States • Central Asian States f) India's relations with Russia and other post-communist countries	**Students will be able to:** • Identify the basic features of the Soviet System. • Discuss the background and outcome of disintegration of the Soviet Union. • Examine the consequences of unipolar world • Assess the features of Shock Therapy • Probe into the recent happenings in the Post-Communist Countries. • Trace the developments between India & Russia
2. Contemporary Centres of Power Topics to be focused: a) European Union b) Association of Southeast Asian Nations c) Rise of China as an economic power d) Japan and South Korea as emerging powers	**Students will be able to:** • Compare and contrast the importance of European Union and ASEAN. • Evaluate the extent of rise of Chinese economy and its impact on world politics. • Summarise India's relations with China.
3. Contemporary South Asia Topics to be focused: a) Military and Democracy in Pakistan and Bangladesh b) Monarchy and Democracy in Nepal c) Ethnic Conflict and Democracy in Sri Lanka d) India-Pakistan Conflicts e) India and its Neighbours f) Peace and Cooperation	**Students will be able to:** • Identify & locate the seven countries of the South Asian region. • Appreciate the mixed record of democracy in the South Asian region. • Examine the role of Political leaders • Reflect upon the causes of various conflicts and movements in this region. • Justify the creation of SAARC • Understand the involvement of US and China in South Asia.
4. International Organizations Topics to be focused: a) Meaning and importance of International Organisations b) Evolution of the UN c) Structures and functions of International Organisations d) Principal Organs of UN	**Students will be able to:** • Define International Organisation • Appreciate the role of United Nations and its agencies • Reflect on the events taking place in the post-cold war era • Understand the need for reforms in the United Nations

e) Reform of the UN after Cold War f) Reform of Structures, Processes and Jurisdiction of the UN h) India and the UN Reforms i) Key Agencies: IMF, World Bank, WTO, ILO, IAEA. j) NGO: Amnesty International, Human Rights Watch. g) Implications and Future of International Organisations	
5. Security in the Contemporary World Topics to be focused: a) Meaning and Type of Security. b) Traditional concept of Security c) Non-tradition notions of Security. d) New Sources of Threats e) Cooperative Security f) India's Security strategy	**Students will be able to:** • Recognise the causes of security threats • Enhance analytical skills to provide solutions to security concerns. • Develop critical thinking about the role of various stakeholders in ensuring security today.
6. Environment and Natural Resources Topics to be focused: a) Environmental Concerns b) Global Commons c) Common but differentiated responsibilities d) India's Stand on Environment Issues f) Environmental Movements g) Resource Geopolitics e) Rights of Indigenous peoples	**Students will be able to:** • Enlist and explain the facts related to global environmental issues • Recognise and understand the need to conserve critical resources Demonstrate knowledge and appreciation towards India's responsibility in protecting environment • Realise the need to conserve resources and exhibit responsibility towards prudential use to facilitate sustainable development • Know about the nature of concerns of indigenous communities and understand how the governments of different countries respond to their plea
7. Globalisation Topics to be focused: a) Concept of globalisation b) Causes and Consequences of globalisation c) India and globalization d) Resistance to globalisation e) India and resistance to globalisation	**Students will be able to:** • Appreciate the significance of Globalisation • Elucidate the political, economic, and cultural dimensions of Globalisation. • Critically evaluate the impact of globalisation on India. • Draw attention to resistance movements to Globalisation and envisage its future trends.

PART B-POLITICS IN INDIA SINCE INDEPENDENCE	
1. Challenges of Nation Building Topics to be focused: a) Challenges for the new Nation. • Three Challenges. b) Partition: Displacement and Rehabilitation. • Consequences of Partition. c) Integration of Princely States. • The problem • Government's approach • Hyderabad • Manipur d) Reorganisation of States.	**Students will be able to:** • Analyse the challenges which Independent India faced. • Describe the factors that led to the partition of India. • Explain the circumstances under which different princely states signed the Instrument of Accession. • Assess how language became the basis of reorganisation of the states. • Evaluate the role played by leaders in Nation Building.
2. Era of One-Party Dominance Topics to be focused: a) Challenge of building democracy. b) Congress dominance in the first three general elect ions. • Nature of Congress dominance • Congress as social and ideological coalition. • Tolerance and management of Factions c) Emergence of opposition parties.	**Students will be able to:** • Appreciate the sustenance of democratic politics in the country. • Evaluate the electoral politics post-Independence • Assess the dominance of the Indian National Congress from 1952 to1967. • Evaluate the role of Opposition parties
3. Politics of Planned Development Topics to be focused: a) Political contestation. • Ideas of Development. • Planning • Planning Commission b) The Early Initiatives • The First Five Year Plan. • Rapid Industrialisation.	**Students will be able to:** • Identify the varied option considered by the government to balance growth and socio-economic justice. • Know the difference between Left and Right Ideology • Understand the need for the formation of the Planning Commission. • Appreciate the need for strategic long-term development programme and policies
4. India's External Relations Topics to be focused: a) International Context b) The Policy of Non-Alignment.	**Students will be able to:** • Recognise the significance of NAM • Interpret, compare and contrast multi-lateral aspects of Indo-China relationship • Demonstrate knowledge on Indo-Pak wars

• Nehru's role • Distance from two camps. • Afro Asian Unity c) Peace and conflict with China • The Chinese Invasion1962 • War and Peace with Pakistan • Bangladesh War 1971 d) India's Nuclear Policy.	• Appreciate the steps taken by Indian government to develop military capacity • Reflect and introspect on the choices that the country must consider for the cause of development and peace building
5. Challenges to and Restoration of the Congress System Topics to be focused: a) Challenge of Political Succession • From Nehru to Shastri • From Shastri to Indira Gandhi b) Fourth General Election1967 • Context of the Election. • Non Congressism • Electoral Verdict • Coalitions • Defections c) Split in the Congress • Indira vs the Syndicate • Presidential Election 1969 d) The 1971 Election and Restoration of Congress • The outcome and after Restoration	**Students will be able to:** • Understand the challenges of political succession after Nehru. Evaluate the opposition unity and the Congress split as a challenge to Congress dominance. • Compare and contrast the new Congress and the old Congress. • Summarise the initiatives taken by Indira Gandhi to overcome the challenges faced by her • Analyse the process of restoration of the Congress system
6. The Crisis of Democratic Order Topics to be focused: a) Background to Emergency. • Economic Context. • Gujarat and Bihar Movements • Conflict with Judiciary c) Declaration of Emergency • Crisis and response • Consequences c) Lessons of the Emergency. d) Politics after Emergency. • Lok Sabha Elections 1977 • Janata Government d) Legacy	**Students will be able to:** • Understand the causes and consequences of Emergency • Examine the lessons of Emergency • Evaluate the rule of Janata Government

7. Regional Aspirations Topics to be focused: a) Region and the Nation • Indian Approach • Areas of Tension • Jammu and Kashmir • Roots of the Problem • External and Internal disputes • Politics since 1948 • Insurgency and After • 2022 and Beyond b) Punjab • Political Context • Cycle of Violence • Road to Peace c) The Northeast • Demand for autonomy • Secessionist Movements • Movements against outsiders • Assam and National Integration	**Students will be able to:** • Discuss the implications of regional demands. • Analyse the importance of integrity in India. • Appreciate the initiatives taken by the government in dealing with regional aspirations
8. Recent Developments in Indian Politics Topics to be focused a) Context of 1990s b) Era of Coalition • Alliance Politics c) Political rise of the Backward Classes • Mandal Implemented • Political Fallouts d) Communalism, Secularism and Democracy. • Ayodhya Issue • From Legal proceedings to amicable acceptance e) Emergence of New Consensus f) Lok Sabha Elections (2004**- 2019**) g) Growing Consensus	**Students will be able to:** • Understand momentous changes taking place in the nation since 1989 • Trace the rise and growth of BJP. • Identify the areas of growing consensus

Prescribed Books:

1. Contemporary World Politics, Class XII, Published by NCERT
2. Politics in India since Independence, Class XII, Published by NCERT
3. Added Reference Material available with the document in the Annexure

Note: The above textbooks are also available in Hindi and Urdu Languages.

CLASS XI-XII
QUESTION PAPER DESIGN

S. No.	Competencies	Marks	Percentage
1	**Knowledge and Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts.	22	27.5%
2	**Understanding**: Understanding of facts and ideas by organizing, comparing, explaining, describing, and stating main ideas.	24	30%
3	**Applying**: Solve problems by applying acquired knowledge, facts to interpret a situation/ cartoon/ clippings/ sources/ Map	22	27.5%
4	**Analysis and Evaluation:** Classify, compare, contrast, or differentiate between pieces of information; organise and/ or integrate from a variety of sources; Examine, synthesize information into parts and identify motives or causes. Make inferences and find evidence to support generalizations.	12	15%
		80	100%

Note: Competency based questions for the examinations to be conducted in the academic year 2026-27 will be 50% in class XII.

QUESTION PAPER DESIGN

Book	Objective Type 1(M)	SA Type I 2(M)	SA Type II (4M)	Passage/Map/ Cartoon based Questions(4M)	LA Type (6M)	Total Weightage
Contemporary World Politics	6	3	3	1	2	40
Politics in India since Independence	6	3	2	2	2	40
Project/Practical						20
Total No. of Marks and Questions	**12**	**6**	**5**	**3**	**4**	**80+20**

NOTE-

1. Question paper will be in five parts (A, B, C, D & E). There will be an internal choice in Part C and Part-E.
2. In order to assess different mental abilities of learners, question paper is likely to include questions based on passages, visuals such as maps, cartoons.
3. Map question can be given from any lesson of Book 2 (Politics in India since Independence); but weightage of lessons should remain unaltered. The Maps available in the official websites of Govt of India may be used.
4. Cartoon and passage-based questions can be asked from either textbook, but weightage of lessons should be maintained

CLASS XI &XII
GUIDELINES FOR PROJECT WORK

Project Work: 20 Marks

Rationale

Political Science as a field of study in senior secondary classes enable students to get an exposure to political activities and processes that they are exposed to in everyday life. The study of political science has emerged as a multifaceted discipline, involving a contemporary interdisciplinary approaches and empirical framework, emphasizing more on field work rather than theoretical perceptions. The connect between government and citizen ensures the emergence of an active and reflective citizens and vibrant democracy. CBSE has therefore incorporated project work in Political Science to enable students to extend their interest beyond textbooks and provide them with a platform to gather information, value the decisions made to shape the community and visualise future course of action to be taken to ensure healthy democracy.

Objectives of project work

To enable learners to:

- probe deeper, initiate action and reflect on knowledge and skills acquired during the course of class XI and XII
- analyse and evaluate real world scenarios using social constructivism, a theory based on observation and scientific study
- become independent and empowered to choose their topic and gather data from a variety of source, investigate varied viewpoints acquired and arrive at logical deductions.
- enquire into, and reflect on, issues independently /in collaboration with others and identify the limitations
- develop 21st century skills of communication, cooperation, coordination, critical thinking, creativity and collaboration to produce an extended and independent work.

Role of the teacher

A teacher should:

- help each learner select the topic based on recently published extracts from the news media, government policies, RBI bulletin, NITI *Aayog* reports, IMF/World Bank reports etc., after detailed discussions and deliberations of the topic.
- play the role of a facilitator to support and monitor the project work of the learner through periodic discussions.
- guide the research work in terms of sources for the relevant data.
- ensure that students understand the relevance and usage of primary evidence and other sources in their projects

- ensure that students are able to derive a conclusion from the content; cite the limitations faced during the research and give appropriate references used in doing the research work
- educate learner about plagiarism and the importance of quoting the source of the information to ensure authenticity of research work

Project overview:

The Project work will be implemented for 20 Marks.

- Out of 20 marks, 10 marks are to be allotted to viva voce and 10 marks for project work.
- For class XII, the evaluation for 20 marks project work should be done jointly by the internal and external examiners and for class XI the evaluation can be done by the internal examiner.
- The project can be individual/pair/group of 4-5 each. The Project can be made on any of the topics given in the syllabus of a particular class or any contemporary issues.
- The project work can be culminated in the form of films, albums, songs, storytelling, debate, Role Play, Skit, Presentation, Model, Field Survey, Mock Drills/Mock Event etc.
- The teacher should give enough time for preparation of the Project Work. The topics for Project Work taken up by the student must be discussed by the teacher in classroom.
- Students can use primary sources available in city archives, Primary sources can also include newspaper cuttings, photographs, film footage and recorded written/speeches. Secondary sources may also be used after proper authentication.
- Viva-Voce
- At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner.
- The questions should be asked from the Research Work/ Project File of the learner.
- The Internal Examiner should ensure that the study submitted by the learner is his/her original work.
- In case of any doubt, authenticity should be checked and verified

The marks will be allocated under the following heads:

S.No.	Components	Marks Allotted
1.	Introduction/Overview	2
2.	Variety Of Contents	3
3.	Presentation	3
4.	Conclusion	1
5.	Bibliography	1
6.	Viva-Voce	10
	TOTAL	**20**

Class XII: Assessment will be done by external examiner in coordination with internal examiner and the date of Project Assessment will be fixed by CBSE. The project reports are to be preserved by the school till the final results are declared, for scrutiny by the Board.

Class XI: Assessment will be done by internal examiner.

SUGGESTED TOPICS

CLASS XI

1. Making of the Constitution.
2. Elections in India.
3. Working of the Indian Judiciary System.
4. Social Justice: Are ethics followed in Indian Politics
5. Human Rights Act and its gratification in India.
6. Political impact on Indian Legislation.

CLASSXII

1. NAM- 1961 to present times.
2. Division of Germany with special focus on the construction and dismantling of the Berlin Wall.
3. CIS-Central Asian Republics
4. Disintegration of USSR with special focus on Gorbachev.
5. Arab Spring
6. Cover the negative as well as positive aspects of relationship between India and the following countries.

Focus on any one of the following (current updates should be highlighted):

a) Relationship between India and Russia
b) Relationship between India and China
c) Relationship between India and Pakistan
d) Relationship between India and Bangladesh

7. ASEAN
8. European Union and India
9. BRICS
10. SAARC
11. India's Nuclear Policy
12. United Nations with focus on India's candidature in Security Council.
13. UN Agencies – UNICEF, UNESCO, WHO
14. Pandemics: Covid 19- Its global impact (focus on worldwide cooperation and preparedness along with controversies (please collect newspaper clippings for the same)
15. Partition of India-Theory behind it and its legacy
16. Comparison between NITI AAYOG and Planning Commission and their contribution in India's Development.
17. Election Commission of India and Electoral Roll and its revision
18. Elections 2019- Rise of BJP and Downfall of Congress (1989-2019).
19. Imposition of Emergency in India
20. NDA III and NDA IV – Social and Economic welfare programmes.

ANNEXURE

NOTE: The additional reference material is for classroom transaction and will not be assessed in the Board examination.

ADDITIONAL REFERENCE MATERIAL- CLASS XI

Part A - Indian Constitution at Work

Chapter -3: Election and Representation

Sub-Topic: 'Electoral Reforms in Indian Politics'

Electoral Reforms in the 21st Century include use of EVM [Electronic Voting Machine], VVPAT [Voter Verifiable Paper Audit Trail] and NOTA [None of the Above]. Restriction on exit polls, ceiling on election expenditure has been raised from 70 lakhs to 95 lakh rupees in bigger states like Maharashtra, Madhya Pradesh, Uttar Pradesh, West Bengal and Karnataka. And 54 lakhs to 75 lakhs in Smaller States which include Goa, Sikkim, Arunachal Pradesh and UTS for the Lok Sabha elections. For Assembly elections, expenditure limits have been enhanced from 28 lakh rupees to 40 lakhs in bigger states and from 20 lakhs to 28 lakhs in smaller states and the use electoral bonds in election funding are some of the major reforms initiated by the Election Commission of India that have sought to bring about revolutionary changes in the electoral process and the voter behaviour in contemporary India.

Revision of Electoral Roll

One of the important responsibilities of the Election Commission of India is to ensure that the Electoral roll (voter lists) is kept updated. To ensure the same, the electoral roll is updated and verified from time to time. The objective is to ensure that the voter list is accurate, inclusive, and free from errors. During this process, new eligible voters are added, names of deceased or shifted persons are removed, and any corrections in existing entries are made. This process ensures that only eligible voters are registered and able to participate in the democratic process of the country.

Chapter 7: Federalism

Sub-Topics: 'Quasi Federalism'. 'Competitive Federalism'

Quasi Federalism: In the context of special features and provisions of Indian federalism we use the phrase, 'Quasi Federalism', a concept given by K. C. Wheare. Quasi federalism represents a strong centre with comparatively less strong units. Wheare describes the Indian case in its formative phase as a 'quasi federation – A unitary state with subsidiary federal features rather than a federal state

with subsidiary unitary features'.

Cooperative Federalism: Cooperative federalism is the concept which reflects the relationship between the Union and the States where both come together and resolve the common problems with each other's cooperation in amicable manner thus contributing towards the growth of a strong federation. It shows the horizontal relationship between the Union and the States where none is placed over and above on the other. To ensure this strong relationship between the two, the Indian constitution has evolved and incorporated certain instruments and agencies like the Inter-State Councils, Zonal Councils, the 7th Schedule, etc.

Competitive Federalism: Competitive federalism places all states vis a vis the Union on equal and competing footing where the best performing states can take the maximum benefits of the resources, services and taxes. It ensures a healthy competition among states leading towards better performance and delivery which constitute important part of governance. The post- liberalization era reflects the trend of competitive federalism where states are more autonomous, accountable, and efficient in their functioning.

Chapter 9: Constitution as a Living Document Sub-Topics: Constitution Amendments

As of 2024, there have been total 106 amendments of the Constitution of India. Source: https://legislative.gov.in/constitution-of-india/.

Part B- Political Theory

Chapter 2: Freedom

Sub-Topics: 'Liberty vs Freedom'

We hear a lot around us that people appear to use the word liberty and freedom as synonyms of each other. But there are some fundamental differences between these two concepts that must be understood. Liberty comes from the Latin word "libertatem" which means "condition of a freeman". While freedom come from the English word "freedom" which means "state of free will". Liberty is power to act and express oneself according to one's will while freedom is the power to decide one's action. Freedom is more concrete concept than liberty which is more associated with an individual's connection with the state rather than with other individuals and circumstances. State guarantees freedom through the liberty it grants to its citizens.

The difference between these two concepts can briefly be outlined as follows:

Liberty	Freedom
• Condition of a freeman	State of freewill
• Power to act	Power to decide
• Free to do something	Free from something

The common feature between these two concepts is that both remain unconstrained, which means that their realization is free from any constrain. Further, both follow rightful or ethical conformity in terms of their realization.

Chapter 4: Social Justice

Sub-Topics: 'Different Dimensions of justice'

Till now we have tried to understand what the term justice means. After considering this, we need to know different dimensions of justice which may help us in establishing a just society. Legal, social, political and economic justice are the key dimensions of justice. Here, we will try to understand these dimensions in some details.

Legal Justice: It is a narrow concept of justice which is associated with the legal system and legal procedure existing in a society. The court of law interprets the law and applies it after hearing the partners involved in a dispute. Here, justice is what administered by the court of law and the interpretation of the judge is considered to be an embodiment of justice.

Political Justice: In any democratic society political justice means providing equal political rights. Political justice stands for a free and fair participation of people in the political sphere. Universal adult franchise is the expression of political jus tice. Equality of opportunity in getting elected and in holding public offices, freedom of expression and association are important pillars of political justice.

Social Justice: It means to end all types of social inequalities and to provide proper opportunity to every citizen in every sphere of life, to develop her/his personality to ensure equality of law, prohibition of discrimination, social security, provision of equal political rights, etc. The concept of social justice is based on the belief that all human beings are equal and no discrimination should be made on the ground of race, religion, caste, gender and place of birth.

Economic Justice: It means to provide equal opportunities to everyone to earn her/his livelihood. It also means to help such people who are not able to work and earn their livelihood. The basic need of every person such as food, cloth, shelter and education should be fulfilled. It stands for by assuring adequate means of livelihood to all, by making provisions for equal pay for equal work, fair distribution of resources, equal economic opportunity to all, etc.

While the concept of political justice is closely linked with the ideal of “liberty”, economic and legal justice with “equality” and social justice with “fraternity”, a just combination of all these four dimensions will help in achieving justice in life.

Chapter 5: Rights

Sub-Topics: ‘Human Rights’

Human rights are those rights which all human beings are entitled by virtue of being human. It is based on the principle of respect for the individual. The fundamental assumption behind the concept of human rights is that every person is amoral and rational being who deserves to be treated with dignity. Human rights are both universal and fundamental; these are universal in the sense that they belong to all human beings irrespective of race, nationality, community, religion, gender, etc.; these are also fundamental because once given, these cannot be taken back.

Although the presence of human rights can be traced to the ancient Indian philosophy and culture, the concept formally originated at the international level in 1948 with the UN Declaration of Human Rights listing 30 rights for all people across the globe.

Chapter 7: Nationalism Sub-Topics: ‘Multiculturalism’

Multiculturalism in the general sense is the coexistence of people of different religions, cultural groups and communities in all countries of the globe. Originated in the 1970s with a counter-culturalism and human rights movement in opposition to the homogenization of other cultures in favor of the white culture of America and Europe, multiculturalism broadly comprises the principles of both ‘acceptance’ and ‘reverence’. It expects all countries of the globe to give equal acceptance and reverence to the cultural groups. In the India context, the concept of multiculturalism is identified with the notion of "Salad Bowl", advocated by social scientist, Ashish Nandy. It shows that different cultural groups within a nation maintain their identity with their respective distinct forms.

CLASS XII

Part A: Contemporary World Politics

Chapter-1: The End of Bipolarity

Sub-Topic: 'Arab Spring'

he 21st century witnessed emergence of new developments for democracies and democratization in West Asian countries, one such event is characterised as Arab Spring that began in 2009. Located in Tunisia, the Arab Spring took its roots where the struggle against corruption, unemployment and poverty was started by the public which turned into a political movement because the people considered the existing problems as outcome of autocratic dictatorship. The demand for democracy that started in Tunisia spread throughout the Muslim-dominated Arab countries in West Asia. Hosni Mubarak, who had been in power in Egypt since 1979, also collapsed as a result of the massive democratic protests. In addition, the influence of Arab Spring could also be seen in Yemen, Bahrain, Libya and Syria where similar protests by the people led to democratic awakening throughout the region.

Chapter-2: Contemporary Centre's of Power

Sub-Topic: 'BRICS'

The term BRICS refers to Brazil, Russia, India, China, and South Africa respectively. BRIC was founded in 2006 in Russia. BRIC turned into BRICS after the inclusion of South Africa in its first meeting in the year 2009. The key objectives of BRICS are primarily to cooperate and distribute mutual economic benefits among its members besides non-interference in the internal policies of each nation and mutual equality. The 11th conference of the BRICS concluded in Brazil in 2019, chaired by Brazilian President Jair Bolsonaro.

Expansion (BRICS+): In 2024, the bloc expanded beyond the original five members.

Egypt, Ethiopia, Iran, and the UAE became full members. Indonesia officially joined in early 2025.

India is scheduled to assume the BRICS Chairmanship and host the **18th BRICS Summit in 2026**.

Sub-Topic: 'Russia'

Russia has been the largest part of the former Soviet Union even before its disintegration. After the dissolution of the Soviet Union in late 1980s and early 1990s, Russia emerged as the strong successor of USSR [Union of Soviet Socialist Republics].

Russia's GDP is currently 11th in the world. Russia has reserves of minerals, natural resources and gases that make it a powerful country in the global world. In addition, Russia is a nuclear state with

a huge stock of sophisticated weapons. Russia is also a permanent member of the UN Security Council, called P-5.

Sub-Topic: 'India'

The 21st century India is being seen as an important emerging global power. The world is experiencing the power and rise of India in a multidimensional way. The economic, cultural, strategic position of the country with a population of more than135 crores is very strong. From an economic perspective, targeting the goal of a $5 trillion economy, a competitive huge market, an ancient inclusive culture with 200 million people of Indian Diaspora spreading across the globe impart distinct meaning and salience to India as a new Centre of power in the 21st century.

From a strategic perspective, the military of India is self-sufficient with indigenous nuclear technology making it another nuclear power. 'Make in India' scheme in technology and science is another milestone of Indian economy. All these changes are making India an important Centre of power in the present world.

Sub-Topic: 'European Union'

Founded in 1993, the European Union (EU) has emerged as one of the most effective regional blocs in the 21st century, promoting peace, prosperity and stability among its member nations. With its 27 members, EU stands among the pioneers of the conception of a globalized world, presenting a supranational structure that promotes global peace and cooperation through active collaboration across political, economic, social, and cultural fronts. Its common market, which enables free movement of people and commodities alike, and euro as a common currency, along with border-free travel across the Schengen Area, strengthen socio-economic integration, facilitate trade and promote cultural exchange. The European Union also guarantees fundamental rights, social security, and equal opportunities for its citizens, transcending national boundaries and fostering a shared foundation for human rights. As a giant trade bloc, the EU is also a leading provider of development aid and humanitarian assistance and has taken up initiatives to meet contemporary global issues such as climate change, sustainable energy, and technological advancement.

Chapter-4: International

Organisations Sub-Topic: 'UNESCO'

The United Nations Educational, Scientific and Cultural Organization (UNESCO) was established on 4 November 1946. With its headquarter in Paris, France, UNESCO is a special body of the United Nations whose main objective is to promote education, natural science, society and anthropology,

culture and communication. During past several years, the special work done by UNESCO has been to promote literacy, technical and educational training and independent media etc. all across its member nations.

Sub-Topic: 'UNICEF'

The United Nations International Children's Emergency Fund (UNICEF) was established in 1946 by the United Nations General Assembly as a body whose main task was to collect emergency funds for children and to help in their development work all across the world. Apart from this, UNICEF helps and encourages the works that promote children's health and better life in all parts of the world. With its' headquarter in New York, United States, UNICEF has been working successfully in almost all 193 countries of the world.

Sub-Topic: 'ILO'

The International Labour Organization (ILO), founded in October 1919 with its headquarter in Geneva, Switzerland, is a body of the United Nations which aims to promote efficient conditions of social justice and work for workers through international labour standards at the global level. In addition, there is an incentive for women and male workers to engage in productive work and to create safety, parity and self-respectful conditions for them at the workplace.

Chapter-5: Security in the Contemporary World

Sub-Topic: 'Terrorism'

Terrorism refers to systematic use of brutal violence that creates an atmosphere of fear in society. It is used for many purposes, very prominently the politico-religious purposes.

There could be three broad meanings of terrorism:

- A systematic use of terror, often violent, especially as a means of coercion.
- Violent acts which are intended to create fear (terror); are perpetrated for a religious, political or, ideological goal; and deliberately target or disregard the safety of non-combatants (civilians).
- Acts of unlawful violence and war.

There is not a single nation in the world that does not suffer from terrorism. Although some countries have tried to divide terrorism into good and bad terrorism, India has always denied this distinction. India's current Prime Minister Narendra Modi has also clarified that terrorism cannot be divided into good or bad; it is a global problem and should be combated collectively.

Part B

Politics in India since Independence

Chapter-1: Challenges of Nation Building

Sub-Topic: 'Patel and National Integration'

The first deputy Prime Minister and Home Minister of India, Sardar Vallabhbhai Patel, emerged as a major leader of the freedom movement after the Kheda Satyagraha (1918) and the Bardoli Satyagraha (1928).

At the time of independence, the problem of integration of princely states was a big challenge for the national unity and integrity of India. Under such difficult times, Sardar Patel undertook the daunting tasks of uniting all 565 princely states of India. Known as an 'Iron Man' of India, Patel's approach to the question of the merger of princely states into independent India was very clear. He was not in favour of any compromise with the territorial integrity of India. By his political experience, diplomatic prowess and foresightedness, out of India's 565 princely states many had already given their consent to merge with India even before achieving the independence.

Sardar Patel faced key challenges of integration from three states, viz., Hyderabad, Junagarh and Kashmir. It was under his leadership that Indian forces compelled Hyderabad and Junagarh to merge with India. Keeping well- versed with Pakistan's intentions from Jinnah's divisive 'Two Nation Theory', Sardar Patel's opinion on Kashmir was different from other leaders. Like Hyderabad, he also wanted Kashmir's integration with India through military operations. But due to various reasons, Sardar Patel could not succeed in integrating Kashmir fully with India. However, Patel will always remain as an astounding leader who combined in himself the features of a true 'Nationalist', 'Catalyst' and 'Realist' – popularly characterised as NCR in Indian political history.

Chapter-3: Politics of Planned Development

Sub-Topic: 'NITI Aayog'

After independence, a Planning Commission based on socialist model was formed for the planned development of India. But in the era of globalization, especially in the 21st century, it was becoming ineffective and irrelevant, particularly in terms of coping with the pressing challenges of development. Hence, during his Independence Day speech on 15 August 2014, Prime Minister Narendra Modi talked about the abolition of the Planning Commission. NITI Aayog was constituted in place of Planning Commission on 1 January 2015 with the objective of providing the necessary and technical advice to the Union Government regarding policy making at the Central and State

levels.

The Prime Minister of India is the ex-officio Chairman of NITI Aayog and he appoints the Vice Chairperson of NITI Aayog. The first Vice Chairperson of NITI Aayog was Arvind Panagariya. Shri Suman Bery is the current Vice Chairperson of NITI Aayog.

To harmonise the interests of national security and economic policy and to prepare strategic and long-term framework of policy and program, NITI Aayog acts as a think tank of the Union Government. By adopting a 'Bottom-Up Approach', the NITI Aayog acts in the spirit of cooperative federalism as it ensures equal participation of all states in the country.

Sub-Topic: National Development Council (NDC)

The National Development Council (NDC) or Rashtriya Vikas Parishad is the apex body for decision creating and deliberations on development matters in India, presided over by the Prime Minister. It was set up on 6 August 1952 under the chairmanship of India's first Prime Minister Pandit Jawaharlal Nehru to strengthen and mobilise the effort and resources of the nation in support of the Five Year Plans made by Planning Commission. The Council comprises the Prime Minister, the Union Cabinet Ministers and Chief Ministers of all States or their substitutes, representatives of the Union Territories and the members of the NITI Aayog (erstwhile Planning Commission).

Objectives of the Council:

- To secure cooperation of the states in the execution of the plan
- To strengthen and mobilise the effort and resources of the nation in support of the Plan
- To promote common economic policies in all vital spheres and
- To ensure the balanced and rapid development of all parts of the country.

Functions of the Council:

- To prescribe guidelines for the formulation of the National Plan, including the assessment of resources for the Plan;
- To consider the National Plan as formulated by the NITI Aayog.
- To make an assessment of the resources required for implementing the Plan and to suggest measures for augmenting them.
- To consider important questions of social and economic policy affecting national development; and
- To review the working of the Plan from time to time and to recommend such measures as are necessary for achieving the aims and targets set out in the National Plan.
- To recommend measures for achievement of the aims and targets set out in the national Plan.

Chapter-4: India's External Relations

Sub-Topic: 'India and European Union relations'

India and the EU have emerged as global collaborators united in their commitment to upholding shared values like democracy, rule of law, and multilateralism, in areas such as trade, security, climate action, technology, and cultural dialogues. Conventionally, the India-EU trade has been focused on mainly machinery and appliances, chemicals, base metals, mineral products, textiles and transport equipment. Over the years, the EU has emerged among India's largest trading partners with focus on fair market access and predictable investment conditions. Collaboration in space research, clean energy, connectivity projects, skilled workers' mobility, digital innovation etc. has consistently increased. Recent initiatives like the Trade and Technology Council and progress in Free Trade Agreement negotiations have shown signs of a more outward-looking and future-oriented partnership. The EU and India have also advanced a new Security and Defence partnership, strengthening cooperation in key areas including maritime security, cybersecurity, cyber defence, and counterterrorism

Sub-Topic: 'India's Nuclear Program' (Updates)

India's nuclear policy has always been peace-oriented, whose clear impression is reflected in the policy of No First Use. But in view of contemporary regional security challenges, the present government has made it clear that the policy of no first use can be reviewed and changed in consonance with India's regional and national security. In addition, India is committed to ensuring its membership in the Nuclear Suppliers Group (NSG) and opposing partisan and unjust nuclear treaties like CTBT and NPT.

Chapter-6 The Crisis of Democratic Order

Sub-Topic: Jaya Prakash Narayan

Jaya Prakash Narayan is known for three key contributions: Fight against Corruption, Principle of Communitarian Socialism and Championing of 'Total Revolution'.

Jaya Prakash Narayan was the first leader in post-independence India who undertook a tirade against corruption through the participation of youth, particularly in Gujarat and Bihar. He the office of Lokpal against corruption. His principle of Communitarian Socialism views India as a society of communities encompassing three key layers, viz., community, region and rashtra – all combining together as an example of true federation.

Based on the above principles, Jaya Prakash Narayan advocated transformation of individual,

society and state through his call for ‘Total Revolution’. His call for total revolution sought to encompass moral, cultural, economic, political, educational and ecological transformations. His political transformation included the right to recall, the importance of village/ mohalla samities in democratic politics, and his call for Upper Ke Log to join political struggle for a clean politics in the country.

The essence for transformation according to Jaya Prakash Narayan revolves around ‘Man’ who could be the real catalyst of change in India.

Sub-Topic: ‘Ram Manohar Lohia and Socialism’

Ram Manohar Lohia has been one of the main proponents of socialism in India. He championed the idea of ‘Democratic Socialism’ while associating his socialism with democracy. Lohia considered both capitalism and communism equally irrelevant for Indian society. His principle of Democratic Socialism has two objectives - the economic objective in form of food and housing. And the non-economic objective in form of democracy and freedom.

Lohia advocated Chouburja Rajneeti in which he opines four pillars of politics as well as socialism: Centre, Region, District and Village – all are linked with each other. Giving consideration to affirmative action, Lohia argued that the policy of affirmative action should not only be for the downtrodden but also for the women and the non-religious minorities.

Based on the premise of Democratic Socialism and Chouburja Rajneeti, Lohia supported a ‘Party ofSocialism’ as an attempt of merging all political parties. The Party of Socialism according to Lohia should have three symbols, viz., Spade [prepared to make efforts], Vote [power of voting], and Prison [Willingness to make sacrifices].

Sub-Topic: ‘Deendayal Upadhyaya and integral Humanism’

Pandit Deendayal Upadhyaya was a philosopher, sociologist, economist and politician. The philosophy presented by him is called 'Integral Humanism' which was intended to present an 'indigenous socio-economic model' in which human being remains at the centre of development. The aim of Integral Humanism is to ensure dignified life for every human being while balancing the needs of the individual and society. It supports sustainable consumption of natural resources so that those resources can be replenished. Integral Humanism enhances not only political but also economic and social democracy and freedom. As it seeks to promote diversity, it is best suited for a country as diverse as India.

The philosophy of Integral Humanism is based on the following three principles:

- Primacy of whole, not part
- Supremacy of Dharma
- Autonomy of Society

Pandit Deendayal Upadhyaya opposed both Western 'capitalist individualism' and 'Marxist socialism'. According to Deendayal Upadhyaya, capitalist and socialist ideologies only consider the needs of the human body and mind, so they are based on materialistic purpose whereas spiritual development is equally considered important for the complete development of human being which is missing in both capitalism and socialism. Basing his philosophy on the internal conscience, pure human soul to be called Chhitti, Deendayal Upadhyaya envisaged a classless, casteless and conflict-free social system.

DeenDayal Upadhyaya advocated Indianization of Democracy, particularly with a focus on Economic Democracy. For him, decentralization & Swadeshi are the foundation of Economic Democracy. His philosophy broadly revolved around the principle of Arthayaam which states that both the absence and prominence of artha lead to the destruction and denigration of Dharma which is so central to Integral Humanism.

Sub-Topic: 'Democratic Upsurges'

Increasing participation of the people in the democratic politics of the country is broadly characterised as democratic upsurge. Based on this principle, social scientists have characterised three democratic upsurges in post- independence history of India.

The 'First Democratic Upsurge' could be attributed from the 1950s till 1970s which was based on the participation of Indian adult voters to the democratic politics both at the Centre and in states. Falsifying the western myth that the success of democracy requires modernization, urbanization, education and access to media, the successful holding of elections to both Lok Sabha and legislative assemblies all across states on the principle of parliamentary democracy were the testimony of India's first democratic upsurge.

During the 1980's, the increasing political participation of the lower classes of the society such as SCs, STs and OBCs has been interpreted as 'Second Democratic Upsurge'. This participation has made Indian politics more accommodative and accessible for these classes. Although this upsurge has not made any major change in the standard of living of these classes, especially Dalits, the participation of these classes into the organizational and political platforms gave them the opportuni

ty to strengthen their self-respect and ensure empowerment in the democratic politics of the country. The era of Liberalization, Privatization and Globalization from the early 1990s is attributed to the emergence of a competitive market society encompassing all important sectors of economy, society and polity thus paving way for the 'Third Democratic Upsurge'. The Third Democratic Upsurge represents a competitive electoral market which is based not on the principle of survival of the fittest but rather the survival of the ablest. It underlines three shifts in India's electoral market: from State to Market, from Government to Governance, from State as Controller to State as Facilitator. Moreover, the Third Democratic Upsurge seeks to promote the participation of the youth who constitute a significant chunk of Indian society and have emerged as the real game changers in view of their increasing electoral preference for both development and governance in India's contemporary democratic politics.

Chapter-7: Regional Aspiration

Sub-Topic: 'The Kashmir Issue'

Since its integration with the Union of India, Kashmir has remained one of the burning issues in post-independence India. The problem became more complicated when it was accorded a special status in the Constitution through Article 370 and Article 35A – the former giving it special powers like having its separate Constitution/Constituent Assembly/Flag, new nomenclature for Chief Minister as Prime Minister and Governor as Sadr-e-Riyasat, and the non-enforcement of most of the Union laws in the state while the later imparting it special citizenship rights prohibiting the non-Kashmiris from buying property in the state.

It was against the special status of the state of Jammu and Kashmir that there was a clarion call for abrogation of Articles 370 and 35A. Others equated Article 370 and 35A as 'constitutionally recognised separatism'.

It was against this backdrop that NDA Government presented the Jammu and Kashmir Reorganization Bill in Rajya Sabha on 5 August 2019 for the abolition of Section 370 and 35-A form Kashmir, which was passed by a majority. The bill was passed by the Lok Sabha on 6 August 2019. After the President's assent on 9 August 2019, Sections 370and 35A were repealed and Jammu and Kashmir got divided into two Union Territories of Ladakh and Jammu and Kashmir.

Chapter-8: Recent Development in Indian Politics

Sub-Topic: 'NDA III, IV & V'

The Bharatiya Janata Party led by Prime Minister Narendra Modi got an absolute majority in the Lok Sabha elections held in May 2014 and after nearly 30 years in Indian politics, a government with an

absolute majority was established at the Centre. Though called NDA III, the BJP-led coalition of 2014 was largely different from its predecessor coalition governments. Where the previous coalitions were led by one of the national parties, the NDA III coalition was not only steered by a national party, i.e., BJP it was also dominated by BJP with an absolute majority of its own in Lok Sabha. It was also called a 'surplus majority coalition'. In that sense a major transformation could be seen in the nature of coalition politics which could be seen from one party led coalition to one party dominated coalition.

The 2019 Lok Sabha elections, the 17th since independence, once again brought back BJP led NDA [NDA IV] to the centre of power by winning more than 350 seats out of 543. The BJP on its own won 303 seats in Lok Sabha, the biggest number any single party has won in the lower house since 1984 when Congress swept the elections in the aftermath of Mrs Indira Gandhi's assassination. Based on the tumultuous success of the BJP in 2019, Social Scientists have started equating the contemporary party system with the 'BJP System' where an era of one-party dominance, like the 'Congress System' has once again started appearing on the democratic politics of India.

In the 2024 elections for 18th Lok Sabha with 240 of the 543 seats, the BJP again emerged as the strongest party. NDA (V) Govt. was formed after the election with the BJP taking support from its partners to achieve 294 seats and form the government. The oppositional Indian National Developmental Inclusive Alliance was able to achieve 232 seats.

Sub-Topic: 'Issues of Development and Governance'

In addition to schemes already existing, several socio-economic welfare schemes have been initiated to make development and governance accessible to the masses such as –

Pradhan Mantri Ujjwala Yojana, Swachh Bharat Abhiyan, Jan-Dhan Yojana, Deendayal Upadhyaya Gram Jyoti Yojana, Kisan Fasal Bima Yojna, Beti Bachao Beti Padhao, Ayushman Bharat Yojana, etc. All these schemes are intended to take administration to the doorstep of the common man by making the rural households, particularly the women, real beneficiaries of the Central Government schemes.

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PHYSICS

Subject Code – 042

Class XI-XII (2026-27)

Senior Secondary stage of school education is a stage of transition from general education to discipline-based focus on curriculum. The present updated syllabus keeps in view the rigor and depth of disciplinary approach as well as the comprehension level of learners. Due care has also been taken that the syllabus is comparable to the international standards. Salient features of the syllabus include:

- Emphasis on basic conceptual understanding of the content.
- Emphasis on use of SI units, symbols, nomenclature of physical quantities and formulations as per international standards.
- Providing logical sequencing of units of the subject matter and proper placement of concepts with their linkage for better learning.
- Reducing the curriculum load by eliminating overlapping of concepts/content within the discipline and other disciplines.
- Promotion of process-skills, problem-solving abilities and applications of Physics concepts.

Besides, the syllabus also attempts to

- Strengthen the concepts developed at the secondary stage to provide firm foundation for further learning in the subject.
- Expose the learners to different processes used in Physics-related industrial and technological applications.
- Develop process-skills and experimental, observational, manipulative, decision making and investigatory skills in the learners.
- Promote problem solving abilities and creative thinking in learners.
- Develop conceptual competence in the learners and make them realize and appreciate the interface of Physics with other disciplines.

PHYSICS (Code No. 042)

COURSE STRUCTURE

Class XI - 2026-27 (Theory)

Time: 3 hrs. **Max Marks: 70**

UNIT	CHAPTERS	MARKS
Unit–I	**Physical World and Measurement**	**23**
	Chapter–1: Units and Measurements	
Unit-II	**Kinematics**	
	Chapter–2: Motion in a Straight Line	
	Chapter–3: Motion in a Plane	
Unit–III	**Laws of Motion**	
	Chapter–4: Laws of Motion	
Unit–IV	**Work, Energy and Power**	**17**
	Chapter–5: Work, Energy and Power	
Unit–V	**Motion of System of Particles and Rigid Body**	
	Chapter–6: System of Particles and Rotational Motion	
Unit-VI	**Gravitation**	
	Chapter–7: Gravitation	
Unit–VII	**Properties of Bulk Matter**	**20**
	Chapter–8: Mechanical Properties of Solids	
	Chapter–9: Mechanical Properties of Fluids	
	Chapter–10: Thermal Properties of Matter	
Unit–VIII	**Thermodynamics**	
	Chapter–11: Thermodynamics	
Unit–IX	**Behaviour of Perfect Gases and Kinetic Theory of Gases**	
	Chapter–12: Kinetic Theory	
Unit–X	**Oscillations and Waves**	**10**
	Chapter–13: Oscillations	
	Chapter–14: Waves	
Total		**70**

Unit I: Physical World and Measurements

Chapter–1: Units and Measurements

Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. significant figures, Determining the uncertainty in result**.** Dimensions of physical quantities, dimensional analysis and its applications.

Unit II: Kinematics

Chapter–2: Motion in a Straight Line

Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, average speed and average velocity and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical and calculus treatment).

Chapter–3: Motion in a Plane

Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors.

Motion in a plane, cases of uniform velocity and uniform acceleration- projectile motion, uniform circular motion.

Unit III: Laws of Motion

Chapter–4: Laws of Motion

Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion.

Law of conservation of linear momentum and its applications.

Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication.

Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).

Unit IV: Work, Energy and Power

Chapter– 5: Work, Energy and Power

Work done by a constant force and a variable force; kinetic energy, work- energy theorem, power.

Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.

Unit V: Motion of System of Particles and Rigid Body

Chapter–6: System of Particles and Rotational Motion

Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications.

Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions.

Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).

Unit VI: Gravitation

Chapter – 7: Gravitation

Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth.

Gravitational potential energy and gravitational potential, escape speed, orbital velocity of a satellite, energy of an orbiting satellite.

Unit VII: Properties of Bulk Matter

Chapter–8: Mechanical Properties of Solids

Elasticity, Stress-strain relationship, Hooke's law, Young’s modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy. Application of elastic behavior of materials (qualitative idea only).

Chapter–9: Mechanical Properties of Fluids

Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure.

Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications (Torricelli's law and Dynamic lift).

Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.

Chapter–10: Thermal Properties of Matter

Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity.

Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law.

Unit VIII: Thermodynamics

Chapter–11: Thermodynamics

Thermal equilibrium and definition of temperature, zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: Thermodynamic state variable and equation of state. Change of condition of gaseous state - isothermal, adiabatic, reversible, irreversible, and cyclic processes.

Unit IX: Behavior of Perfect Gases and Kinetic Theory of Gases

Chapter–12: Kinetic Theory

Equation of state of a perfect gas, work done in compressing a gas.

Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.

Unit X: Oscillations and Waves

Chapter–13: Oscillations

Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their applications.

Simple harmonic motion (S.H.M), uniform circular motion and its equations of motion; phase; oscillations of a loaded spring- restoring force and force constant; energy in S.H.M.
Kinetic and potential energies; simple pendulum derivation of expression for its time period.

Chapter–14: Waves

Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.

PRACTICALS

The record, to be submitted by the students, at the time of their annual examination, has to include:

- Record of at least 8 Experiments [with 4 from each section], to be performed by the students.
- Record of at least 6 Activities [with 3 each from section A and section B], to be performed by the students.
- Report of the project carried out by the students.

EVALUATION SCHEME

Time 3 hours **Max. Marks: 30**

Topic	Marks
Two experiments one from each section	7+7
Practical record (experiment and activities)	5
One activity from any section	3
Investigatory Project	3
Viva on experiments, activities and project	5
Total	**30**

SECTION–A

Experiments

1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.
2. To measure diameter of a given wire and thickness of a given sheet using screw gauge.
3. To determine volume of an irregular lamina using screw gauge.
4. To determine radius of curvature of a given spherical surface by a spherometer.
5. To determine the mass of two different objects using a beam balance.
6. To find the weight of a given body using parallelogram law of vectors.

7. Using a simple pendulum, plot its graph and use it to find the effective length of second's pendulum.
8. To study variation of time period of a simple pendulum of a given length by taking bobs of same size but different masses and interpret the result.
9. To study the relationship between force of limiting friction and normal reaction and to find the co- efficient of friction between a block and a horizontal surface.
10. To find the downward force, along an inclined plane, acting on a roller due to gravitational pull of the earth and study its relationship with the angle of inclination θ by plotting graph between force and Sinθ.

Activities

1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.
2. To determine mass of a given body using a metre scale by principle of moments.
3. To plot a graph for a given set of data, with proper choice of scales and error bars.
4. To measure the force of limiting friction for rolling of a roller on a horizontal plane.
5. To study the variation in range of a projectile with angle of projection.
6. To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).
7. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.

SECTION–B

Experiments

1. To determine Young's modulus of elasticity of the material of a given wire.
2. To find the force constant of a helical spring by plotting a graph between load and extension.
3. To study the variation in volume with pressure for a sample of air at constant temperature by plotting graphs between P and V, and between P and 1/V.
4. To determine the surface tension of water by capillary rise method.
5. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.
6. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.
7. To determine specific heat capacity of a given solid by method of mixtures.
8. To study the relation between frequency and length of a given wire under constant tension using sonometer.
9. To study the relation between the length of a given wire and tension for constant frequency using sonometer.
10. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions.

Activities

1. To observe change of state and plot a cooling curve for molten wax.
2. To observe and explain the effect of heating on a bi-metallic strip.
3. To note the change in level of liquid in a container on heating and interpret the observations.
4. To study the effect of detergent on surface tension of water by observing capillary rise.
5. To study the factors affecting the rate of loss of heat of a liquid.
6. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in the middle.
7. To observe the decrease in pressure with increase in velocity of a fluid.

Practical Examination for Visually Impaired Students Class XI

Note: Same Evaluation scheme and general guidelines for visually impaired students as given for Class XII may be followed.

A. Items for Identification/Familiarity of the apparatus for assessment in practical's (All experiments)

Spherical ball, Cylindrical objects, vernier calipers, beaker, calorimeter, Screw gauge, wire, Beam balance, spring balance, weight box, gram and milligram weights, forceps, Parallelogram law of vectors apparatus, pulleys and pans used in the same 'weights' used, Bob and string used in a simple pendulum, meter scale, split cork, suspension arrangement, stop clock/stop watch, Helical spring, suspension arrangement used, weights, arrangement used for measuring extension, Sonometer, Wedges, pan and pulley used in it, 'weights' Tuning Fork, Meter scale, Beam balance, Weight box, gram and milligram weights, forceps, Resonance Tube, Tuning Fork, Meter scale, Flask/Beaker used for adding water.

B. List of Practicals

1. To measure diameter of a small spherical/cylindrical body using vernier calipers.
2. To measure the internal diameter and depth of a given beaker/calorimeter using vernier calipers and hence find its volume.
3. To measure diameter of given wire using screw gauge.
4. To measure thickness of a given sheet using screw gauge.
5. To determine the mass of a given object using a beam balance.
6. To find the weight of given body using the parallelogram law of vectors.
7. Using a simple pendulum plot L-T and graphs. Hence find the effective length of second's pendulum using appropriate length values.
8. To find the force constant of given helical spring by plotting a graph between load and extension.
9. (i) To study the relation between frequency and length of a given wire under constant tension using a sonometer.

   (ii) To study the relation between the length of a given wire and tension, for constant frequency, using a sonometer.
10. To find the speed of sound in air, at room temperature, using a resonance tube, by observing the two resonance positions.

Note: The above practicals may be carried out in an experiential manner rather than recording observations.

Prescribed Books:

1. Physics Part-I, Textbook for Class XI, Published by NCERT
2. Physics Part-II, Textbook for Class XI, Published by NCERT
3. Laboratory Manual of Physics, Class XI Published by NCERT
4. The list of other related books and manuals brought out by NCERT (consider multimedia also).

Note:

The content indicated in NCERT textbooks as excluded for the year 2026-27 is not to be tested by schools.

CLASS XII (2026-27)

PHYSICS (THEORY)

Time: 3 hrs. **Max Marks: 70**

UNIT	CHAPTERS	MARKS
Unit–I	**Electrostatics**	
	Chapter–1: Electric Charges and Fields	
	Chapter–2: Electrostatic Potential and Capacitance	**16**
Unit-II	**Current Electricity**	
	Chapter–3: Current Electricity	
Unit-III	**Magnetic Effects of Current and Magnetism**	
	Chapter–4: Moving Charges and Magnetism	
	Chapter–5: Magnetism and Matter	**17**
Unit-IV	**Electromagnetic Induction and Alternating Currents**	
	Chapter–6: Electromagnetic Induction	
	Chapter–7: Alternating Current	
Unit–V	**Electromagnetic Waves**	
	Chapter–8: Electromagnetic Waves	
Unit–VI	**Optics**	**18**
	Chapter–9: Ray Optics and Optical Instruments	
	Chapter–10: Wave Optics	
Unit–VII	**Dual Nature of Radiation and Matter**	
	Chapter–11: Dual Nature of Radiation and Matter	
Unit–VIII	**Atoms and Nuclei**	**12**
	Chapter–12: Atoms	
	Chapter–13: Nuclei	
Unit–IX	**Electronic Devices**	
	Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits	**7**
Total		**70**

Unit I: Electrostatics

Chapter–1: Electric Charges and Fields

Electric charges, Conservation of charge, Coulomb's law-force between two- point charges, forces between multiple charges; superposition principle and continuous charge distribution.

Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field.

Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).

Chapter–2: Electrostatic Potential and Capacitance

Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field.

Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only).

Unit II: Current Electricity

Chapter–3: Current Electricity

Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge.

Unit III: Magnetic Effects of Current and Magnetism

Chapter–4: Moving Charges and Magnetism

Concept of magnetic field, Oersted's experiment.

Biot - Savart law and its application to current carrying circular loop.

Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields.

Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter.

Chapter–5: Magnetism and Matter

Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines.

Magnetic properties of materials- Para-, dia- and ferro – magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.

Unit IV: Electromagnetic Induction and Alternating Currents

Chapter–6: Electromagnetic Induction

Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction.

Chapter–7: Alternating Current

Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer.

Unit V: Electromagnetic waves

Chapter–8: Electromagnetic Waves

Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only).

Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.

Unit VI: Optics

Chapter–9: Ray Optics and Optical Instruments

Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism.

Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.

Chapter–10: Wave Optics

Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maxima (qualitative treatment only).

Unit VII: Dual Nature of Radiation and Matter

Chapter–11: Dual Nature of Radiation and Matter

Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light.
Experimental study of photoelectric effect
Matter waves-wave nature of particles, de-Broglie relation.

Unit VIII: Atoms and Nuclei

Chapter–12: Atoms

Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom, Expression for radius of nth possible orbit, velocity and energy of electron in nth orbit, hydrogen line spectra (qualitative treatment only).

Chapter–13: Nuclei

Composition and size of nucleus, nuclear force

Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion.

Unit IX: Electronic Devices

Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits

Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors- p and n type, p-n junction

Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction diode -diode as a rectifier.

PRACTICALS

The record to be submitted by the students at the time of their annual examination has to include:

- Record of at least 8 Experiments [with 4 from each section], to be performed by the students.
- Record of at least 6 Activities [with 3 each from section A and section B], to be performed by the students.
- The Report of the project carried out by the students.

Evaluation Scheme

Max. Marks: 30 **Time 3 hours**

Two experiments one from each section	7+7 Marks
Practical record [experiments and activities]	5 Marks
One activity from any section	3 Marks
Investigatory Project	3 Marks
Viva on experiments, activities and project	5 Marks
Total	**30 marks**

Experiments **SECTION–A**

1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
2. To find resistance of a given wire / standard resistor using metre bridge.
3. To verify the laws of combination (series) of resistances using a metre bridge.

OR

To verify the laws of combination (parallel) of resistances using a metre bridge.

4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
5. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same.

OR

To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same.

6. To find the frequency of AC mains with a sonometer.

Activities

1. To measure the resistance and impedance of an inductor with or without iron core.
2. To measure resistance, voltage (AC/DC), current (AC) and check continuity of a given circuit using multimeter.
3. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
4. To assemble the components of a given electrical circuit.
5. To study the variation in potential drop with length of a wire for a steady current.
6. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

SECTION-B

Experiments

1. To find the value of *v* for different values of *u* in case of a concave mirror and to find the focal length.
2. To find the focal length of a convex mirror, using a convex lens.
3. To find the focal length of a convex lens by plotting graphs between *u* and *v* or between *1/u* and *1/v*.
4. To find the focal length of a concave lens, using a convex lens.
5. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
6. To determine refractive index of a glass slab using a travelling microscope.
7. To find the refractive index of a liquid using convex lens and plane mirror.
8. To find the refractive index of a liquid using a concave mirror and a plane mirror.
9. To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.

Activities

1. To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.
2. Use of multimeter to see the unidirectional flow of current in case of a diode and an LED and check whether a given electronic component (e.g., diode) is in working order.

3. To study effect of intensity of light (by varying distance of the source) on an LDR.
4. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
5. To observe diffraction of light due to a thin slit.
6. To study the nature and size of the image formed by a (i) convex lens, or (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror).
7. To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses.

Suggested Investigatory Projects

1. To study various factors on which the internal resistance/EMF of a cell depends.
2. To study the variations in current flowing in a circuit containing an LDR because of a variation in
   (a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance).
   (b) the distance of an incandescent lamp (of fixed power) used to 'illuminate' the LDR.
3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and an adjustable object needle.
4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.
5. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.
6. To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.
7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.
8. To study the earth's magnetic field using a compass needle -bar magnet by plotting magnetic field lines and tangent galvanometer.

Practical Examination for Visually Impaired Students of

Classes XI and XII Evaluation Scheme

Time 2 hours **Max. Marks: 30**

Identification/Familiarity with the apparatus	5 marks
Written test (based on given/prescribed practicals)	10 marks
Practical Record	5 marks
Viva	10 marks
Total	**30 marks**

General Guidelines

- The practical examination will be of two-hour duration.
- A separate list of ten experiments is included here.
- The written examination in practicals for these students will be conducted at the time of practical examination of all other students.
- The written test will be of 30 minutes duration.
- The question paper given to the students should be legibly typed. It should contain a total of 15 practical skill based very short answer type questions. A student would be required to answer any 10 questions.
- A writer may be allowed to such students as per CBSE examination rules.
- All questions included in the question papers should be related to the listed practicals.
- Every question should require about two minutes to be answered.
- These students are also required to maintain a practical file. A student is expected to record at least five of the listed experiments as per the specific instructions for each subject. These practicals should be duly checked and signed by the internal examiner.
- The format of writing any experiment in the practical file should include aim, apparatus required, simple theory, procedure, related practical skills, precautions etc.
- Questions may be generated jointly by the external/internal examiners and used for assessment.
- The viva questions may include questions based on basic theory/principle/concept, apparatus/ materials/chemicals required, procedure, precautions, sources of error etc.

Class XII

A. Items for Identification/ familiarity with the apparatus for assessment in practicals (All experiments)

Meter scale, general shape of the voltmeter/ammeter, battery/power supply, connecting wires, standard resistances, connecting wires, voltmeter/ammeter, meter bridge, screw gauge, jockey Galvanometer, Resistance Box, standard Resistance, connecting wires, Potentiometer, jockey, Galvanometer, Lechlanche cell, Daniell cell [simple distinction between the two vis-à-vis their outer (glass and copper) containers], rheostat connecting wires, Galvanometer, resistance box, Plug-in and tapping keys, connecting wires battery/power supply, Diode, Resistor (Wire-wound or carbon ones with two wires connected to two ends), capacitors (one or two types), Inductors, Simple electric/electronic bell, battery/power supply, Plug- in and tapping keys, Convex lens, concave lens, convex mirror, concave mirror, Core/hollow wooden cylinder, insulated wire, ferromagnetic rod, Transformer core, insulated wire.

B. List of Practicals

1. To determine the resistance per cm of a given wire by plotting a graph between voltage and current.
2. To verify the laws of combination (series/parallel combination) of resistances by Ohm's law.
3. To find the resistance of a given wire / standard resistor using a meter bridge.
4. To determine the resistance of a galvanometer by half deflection method.
5. To identify a resistor, capacitor, inductor and diode from a mixed collection of such items.
6. To observe the difference between
   (i) a convex lens and a concave lens
   (ii) a convex mirror and a concave mirror and to estimate the likely difference between the power of two given convex /concave lenses.
7. To design an inductor coil and to know the effect of
   (i) change in the number of turns
   (ii) Introduction of ferromagnetic material as its core material on the inductance of the coil.
8. To design a (i) step up (ii) step down transformer on a given core and know the relation between its input and output voltages.

Note: The above practicals may be carried out in an experiential manner rather than recording observations.

Prescribed Books:

1. Physics, Class XI, Part -I and II, Published by NCERT.
2. Physics, Class XII, Part -I and II, Published by NCERT.
3. Laboratory Manual of Physics for class XII Published by NCERT.
4. The list of other related books and manuals brought out by NCERT (consider multimedia also).

Note:

The content indicated in NCERT textbooks as excluded for the year 2026-27 is not to be tested by schools and will not be assessed in the Board examinations 2026-27.

QUESTION PAPER DESIGN

Theory (Class: XI/XII)

Maximum Marks: 70 **Duration: 3 hrs.**

S No.	Typology of Questions	Total Marks	Approximate Percentage
1	**Remembering**: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding**: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	27	38 %
2	**Applying**: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	22	32%
3	**Analysing :** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating**: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	21	30%
	Total Marks	**70**	**100**
	Practical	**30**	
	Gross Total	**100**	

Note:

The above template is only a sample. Suitable internal variations may be made for generating similar templates keeping the overall weightage to different form of questions and typology of questions same.

For more details kindly refer to Sample Question Paper of class XII for the year 2026-27 to be published by CBSE at its website.

Mathematics

Subject Code – 041

Classes XI-XII (2026 – 27)

The Syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of the society. Senior Secondary stage is a launching stage from where the students go either for higher academic education in Mathematics or for professional courses like Engineering, Physical and Biological science, Commerce or Computer Applications. The present revised syllabus has been designed in accordance with National Curriculum Framework 2005 and as per guidelines given in Focus Group on Teaching of Mathematics 2005 which is to meet the emerging needs of all categories of students. Motivating the topics from real life situations and other subject areas, greater emphasis has been laid on application of various concepts.

Objectives

The broad objectives of teaching Mathematics at senior school stage intend to help the students:

- to acquire knowledge and critical understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles, symbols and mastery of underlying processes and skills.
- to feel the flow of reasons while proving a result or solving a problem.
- to apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method.
- to develop positive attitude to think, analyze and articulate logically.
- to develop interest in the subject by participating in related competitions.
- to acquaint students with different aspects of Mathematics used in daily life.
- to develop an interest in students to study Mathematics as a discipline.
- to develop awareness of the need for national integration, protection of environment, observance of small family norms, removal of social barriers, elimination of gender biases.
- to develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics.

COURSE STRUCTURE

CLASS XI (2026-27)

Three Hours **Max Marks: 80**

No.	Units	Marks
I.	Sets and Functions	23
II.	Algebra	25
III.	Coordinate Geometry	12
IV.	Calculus	08
V.	Statistics and Probability	12
	Total	**80**
	Internal Assessment	**20**

*No chapter/unit-wise weightage. Care to be taken to cover all the chapters.

Unit-I: Sets and Functions

1. Sets

Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement.

2. Relations & Functions

Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (up to R x R x R). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions.

3. Trigonometric Functions

Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $sin^2x + cos^2x = 1$, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing $sin\,(x \pm y)$ and $cos\,(x \pm y)$ in terms of $sinx,\ siny, cosx$ & $cosy$ and their simple applications. Deducing identities like the following:

$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}, \cot(x \pm y) = \frac{\cot x \mp \cot y}{\cot y \pm \cot x}$

$\sin \alpha \pm \sin \beta = 2 \sin \frac{1}{2}(\alpha \pm \beta) \cos \frac{1}{2}(\alpha \mp \beta)$

$\cos \alpha + \cos \beta = 2 \cos \frac{1}{2}(\alpha + \beta) \cos \frac{1}{2}(\alpha - \beta)$

$\cos \alpha - \cos \beta = -2 \sin \frac{1}{2}(\alpha + \beta) \sin \frac{1}{2}(\alpha - \beta)$

Identities related to $\sin 2x$, $\cos 2x$, $\tan 2x$, $\sin 3x$, $\cos 3x$ and $\tan 3x$.

Unit-II: Algebra

1. Complex Numbers and Quadratic Equations

Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane.

2. Linear Inequalities

Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.

3. Permutations and Combinations

Fundamental principle of counting. Factorial *n.* (n!) Permutations and combinations, derivation of Formulae for ${}^{n}P_{r}$, ${}^{n}C_{r}$ and their connections, simple applications.

4. Binomial Theorem

Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.

5. Sequence and Series

Sequence and Series. Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of *n* terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M

Unit-III: Coordinate Geometry

1. Straight Lines

Brief recall of two-dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form. Distance of a point from a line.

2. Conic Sections

Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.

3. Introduction to Three-dimensional Geometry

Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.

Unit-IV: Calculus

1. Limits and Derivatives

Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions of polynomial and trigonometric functions.

Unit-V Statistics and Probability

1. Statistics

Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.

2. Probability

Events; occurrence of events, ‘not’, ‘and’ and ‘or’ events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of ‘not’, ‘and’ and ‘or’ events.

MATHEMATICS QUESTION PAPER DESIGN

CLASS – XI (2026-27)

Time: 3 hours **Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage
1	**Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	44	55
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	20	25
3	**Analysing:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	16	20
	Total	**80**	**100**

1. *No chapter wise weightage. Care to be taken to cover all the chapters*
2. *Suitable internal variations may be made for generating various templates keeping the overall weightage to different form of questions and typology of questions same.*

Choice(s):

There will be no overall choice in the question paper. However, 33% internal choices will be given in all the sections

INTERNAL ASSESSMENT	**20 MARKS**
Periodic Tests (Best 2 out of 3 tests conducted)	10 Marks
Mathematics Activities	10 Marks

Note: Please refer the guidelines given under XII Mathematics Syllabus.

CLASS – XI (2026-27)

The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. This reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

S.No.	Content
	Unit-I: Sets and Functions
1.	**Sets**
	Practical problems on Union and Intersection of two sets.
2.	**Relations and Functions**
	Composition of Functions
3.	**Trigonometric Functions**
	General solution of trigonometric equations of the type $\sin y = \sin a$, $\cos y = \cos a$ and $\tan y = \tan a$.
	Unit-II: Algebra
1.	**Principle of Mathematical Induction**
	Process of the proof by induction, motivating the application of the method by looking at natural numbers as the least inductive subset of real numbers. The principle of mathematical induction and simple applications.
2.	**(Complex Numbers and) Quadratic Equations**
	Polar representation of complex numbers. Statement of Fundamental Theorem of Algebra, solution of quadratic equations (with real coefficients) in the complex number system.
3.	**Linear Inequalities**
	Graphical solution of linear inequalities in two variables. Graphical method of finding a solution of system of linear inequalities in two variables.
4.	**Binomial Theorem**
	General and middle term in binomial expansion.
5.	**Sequence and Series**
	Formulae for the following special sums $\sum_{k=1}^{n} k$, $\sum_{k=1}^{n} k^2$, $\sum_{k=1}^{n} k^3$
	Unit-III: Coordinate Geometry
1.	**Straight Lines**
	Normal form. General equation of a line.
2.	**Introduction to Three-dimensional Geometry**
	Section formula.
	Unit-IV: Calculus
1.	**Limits and Derivatives**
	Derivatives of composite functions (Chain rule).
	Unit-V Statistics and Probability
1.	**Probability**
	Random experiments; outcomes, sample space (set representation).

COURSE STRUCTURE

CLASS – XII

(2026-27)

One Paper **Max. Marks: 80**

No.	Units	Marks
I.	Relations and Functions	08
II.	Algebra	10
III.	Calculus	35
IV.	Vectors and Three - Dimensional Geometry	14
V.	Linear Programming	05
VI.	Probability	08
	Total	**80**
	Internal Assessment	**20**

Unit-I: Relations and Functions

1. Relations and Functions

Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.

2. Inverse Trigonometric Functions

Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions.

Unit-II: Algebra

1. Matrices

Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operations on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non- commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).

2. Determinants

Determinant of a square matrix (up to 3 x 3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.

Unit-III: Calculus

1. Continuity and Differentiability

Continuity and differentiability, chain rule, derivative of composite functions, derivatives of inverse trigonometric functions like $\sin^{-1} x$, $\cos^{-1} x$ and $\tan^{-1} x$, derivative of implicit functions. Concept of exponential and logarithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives.

2. Applications of Derivatives

Applications of derivatives: rate of change of quantities, increasing/decreasing functions, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real- life situations).

3. Integrals

Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, Evaluation of simple integrals of the following types and problems based on them.

$$\int \frac{dx}{x^2 \pm a^2}, \int \frac{dx}{\sqrt{x^2 \pm a^2}}, \int \frac{dx}{\sqrt{a^2 - x^2}}, \int \frac{dx}{ax^2+bx+c}, \int \frac{dx}{\sqrt{ax^2+bx+c}}, \int \frac{px+q}{ax^2+bx+c} dx,$$

$$\int \frac{px+q}{\sqrt{ax^2+bx+c}} dx, \int \sqrt{a^2 \pm x^2}\, dx, \int \sqrt{x^2 - a^2}\, dx, \int \sqrt{ax^2 + bx + c}\, dx$$

Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals.

4. Application of the Integrals

Applications in finding the area under simple curves, especially lines, circles/ parabolas/ellipses (in standard form only)

5. Differential Equations

Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. Solutions of linear differential equation of the type:

$\frac{dy}{dx} + py = q$, where p and q are functions of x or constants.

$\frac{dx}{dy} + px = q$, where p and q are functions of y or constants.

Unit-IV: Vectors and Three-dimensional Geometry

1. Vectors

Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors.

2. Three-dimensional Geometry

Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, skew lines, shortest distance between two lines. Angle between two lines.

Unit-V: Linear Programming Problem

1. Linear Programming

Introduction, related terminology such as constraints, objective function, optimization, graphical method of solution for problems in two variables, feasible and infeasible regions (bounded or unbounded), feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).

Unit-VI: Probability

1. Probability

Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem.

MATHEMATICS (Code No. – 041)

QUESTION PAPER DESIGN

CLASS – XII (2026-27)

Time: 3 hours **Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage
1	**Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	44	55
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	20	25
3	**Analysing :** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	16	20
	Total	**80**	**100**

1. *No chapter wise weightage. Care to be taken to cover all the chapters*
2. *Suitable internal variations may be made for generating various templates keeping the overall weightage to different form of questions and typology of questions same.*

Choice(s):

There will be no overall choice in the question paper. However, 33% internal choices will be given in all the sections

INTERNAL ASSESSMENT	**20 MARKS**
Periodic Tests (Best 2 out of 3 tests conducted)	10 Marks
Mathematics Activities	10 Marks

Note: For activities NCERT Lab Manual may be referred.

Conduct of Periodic Tests:

Periodic Test is a Pen and Paper assessment which is to be conducted by the respective subject teacher. The format of periodic test must have questions items with a balance mix, such as, very short answer (VSA), short answer (SA) and long answer (LA) to effectively assess the knowledge, understanding, application, skills, analysis, evaluation and synthesis. Depending on the nature of subject, the subject teacher will have the liberty of incorporating any other types of questions too. The modalities of the PT are as follows:

a) **Mode:** The periodic test is to be taken in the form of pen-paper test.

b) **Schedule:** In the entire Academic Year, three Periodic Tests in each subject may be conducted as follows:

Test	Pre-Mid-term (PT-I)	Mid-Term (PT-II)	Post Mid-Term (PT-III)
Tentative Month	July-August	November	December-January

This is only a suggestive schedule and schools may conduct periodic tests as per their convenience. The winter bound schools would develop their own schedule with similar time gaps between two consecutive tests.

c) **Average of Marks**: Once schools complete the conduct of all the three periodic tests, they will convert the weightage of each of the three tests into ten marks each for identifying best two tests. The best two will be taken into consideration and the average of the two shall be taken as the final marks for PT.

d) The school will ensure simple documentation to keep a record of performance as suggested in detail circular no. Acad-05/2017.

e) **Sharing of Feedback/Performance**: The students' achievement in each test must be shared with the students and their parents to give them an overview of the level of learning that has taken place during different periods. Feedback will help parents formulate interventions (conducive ambience, support materials, motivation and morale-boosting) to further enhance learning. A teacher, while sharing the feedback with student or parent, should be empathetic, non- judgmental and motivating. It is recommended that the teacher share best examples/performances of IA with the class to motivate all learners

Assessment of Activity Work:

Throughout the year any 10 activities shall be performed by the student from the activities given in the NCERT Laboratory Manual for the respective class (XI or XII) which is available on the link: http://www.ncert.nic.in/exemplar/labmanuals.html a record of the same may be kept by the student. An year end test on the activity may be conducted

The weightage are as under:

- The activities performed by the student throughout the year and record keeping: 5 marks
- Assessment of the activity performed during the year end test: 3 marks
- Viva-voce: 2 marks

Prescribed Books:

1) Mathematics Textbook for Class XI, NCERT Publications
2) Mathematics Part I - Textbook for Class XII, NCERT Publication
3) Mathematics Part II - Textbook for Class XII, NCERT Publication
4) Mathematics Exemplar Problem for Class XI, Published by NCERT
5) Mathematics Exemplar Problem for Class XII, Published by NCERT
6) Mathematics Lab Manual class XI, published by NCERT
7) Mathematics Lab Manual class XII, published by NCERT

HISTORY
SUBJECT CODE: 027
Classes XI-XII (2026-27)

RATIONALE

The History curriculum introduces the students to a set of important historical events and processes through a focus on a series of historical issues, debates and through various sources. Discussion of these themes would allow students not only to know about the events and processes, but also to discover the excitement of reading history. However, practical way of assessing whether the learning objectives have been actualised or not, can be ensure d by the way of having stated outcomes. These outcomes have been enumerated against the learning objectives so that the concerned teachers and their students can adopt different kinds of constructive strategies and competency-based assessment techniques. It is also to be understood that the learning objectives and their outcomes are essentially linked and complementary to each other.

AIMS & OBJECTIVES

History gives us the tools to analyse and explain problems in the past, it helps us to see the patterns that might otherwise be not known in the present. It provides a crucial perspective for understanding and solving the current and future problems.

Studying the diversity of human experience helps us appreciate cultures, ideas, and traditions and to recognise them as meaningful outcomes of specific times and places. History helps us realise how different is our life from that of our ancestors, yet how similar we are in our goals and values. With lessons from the past, we not only learn about ourselves and how we came to be, but also develop the ability to avoid mistakes and create better paths for our societies.

The subject emphasises that history is a critical discipline, a process of enquiry, a way of knowing about the past, rather than just a collection of facts. The syllabus would help them to understand the process through which historians write history, by choosing and assembling different types of evidence, and by reading their sources critically. They will appreciate how historians follow the trails that lead to the past, and how historical knowledge develops.

The syllabus would also enable students to store/relate/compare developments in different situations, analyse connections between similar processes located in different time periods, and discover the relationship between different methods of enquiry within history and the allied disciplines.

THEMES IN CLASS XI

The syllabus in class XI is organised around some major themes in the world history.

1. Focus on some important developments in different spheres-political, social, cultural, and economic.

2. Study not only the grand narratives of development-urbanisation, industrialisation, and modernisation-but also to know about the processes of displacements and marginalisation. Through the study of these themes' students will acquire a sense of the wider historical processes as well as an idea of the specific debates around them.

   The treatment of each theme in class XI would include an overview of the theme under discussion, a more detailed focus on one region of study and an introduction to a critical debate associated with the issue.

   Many of the themes will introduce to the debates in the field and show how historians continuously rethink old issues.

THEMES IN CLASS XII

In class XII the focus will shift to a detailed study of some themes in ancient, medieval, and modern Indian history although the attempt is to soften the distinction between what is conventionally termed as ancient, medieval and modern. The object would be to study a set of these themes in some detail and depth rather than survey the entire chronological span of Indian history. In this sense the course will be built on the knowledge that the students have acquired in the earlier classes.

Each theme in class XII will also introduce the students to one type of source for the study of history. Through such a study, students would begin to see what different types of sources can reveal and what they cannot tell. They would come to know how historians analyse these sources, the problems, and difficulties of interpreting each type of source, and the way a larger picture of an event, a historical process, or a historical figure, is built by looking at different types of sources.

Each theme for class XII will be organised around four sub heads:

1. A detailed overview of the events, issues, and processes under discussion.
2. A summary of the present state of research on the theme.
3. An account of how knowledge about the theme has been acquired.
4. An excerpt from a primary source related to the theme, explaining how it has been said by historians.

While the themes in both the classes (XI and XII) are arranged in a broad chronological sequence, there are overlaps between them. This is intended to convey a sense that chronological divides and periodization do not always operate in a neat fashion. In the textbooks each theme would be located in a specific time and place. But these discussions would be situated within a wider context by……

- Plotting the specific event within timelines.
- Discussing the event or process in relation to the developments in other places and other times.

COURSE STRUCTURE
Class XI

Section Title	Theme No.	Theme Title	Marks
Reading of World History		Introduction of World History	
I EARLY SOCIETIES		Introduction Timeline I (6 MYA TO 1 BCE)	
	1	Writing and City Life	10
II EMPIRES		Introduction Timeline II (C. 100 BCE TO 1300 CE)	
	2	An Empire Across Three Continents	10
	3	Nomadic Empires	10
III CHANGING TRADITIONS		Introduction Timeline III (C. 1300 TO 1700)	
	4	The Three orders	10
	5	Changing Cultural Traditions	10
IV TOWARDS MODERNISATION		Introduction Timeline IV (C. 1700 TO 2000)	
	6	Displacing Indigenous Peoples	10
	7	Paths to Modernisation	15
	Map	Map work of the related Themes	05
		Theory Total	80
		Project work	20
		TOTAL	**100**

Note-The Maps available in the official website of Govt., of India may be used

COURSE CONTENT
CLASS XI

Section	Theme	Learning outcome with specific competencies
I EARLY SOCIETIES	**Timeline I (6 MYA TO 1 BCE)**	❖ Understanding the concept of chronology
	Theme 1 Writing and City Life Focus: Iraq, 3rd millennium BCE a. Growth of towns b. Nature of early urban societies c. Historians 'Debate on uses of writing.	❖ Elucidate the interwoven social and cultural aspects of civilization in order to understand the connection between city life and culture of contemporary civilizations through their writings. ❖ Analyse the outcomes of a sustained tradition of writing. ❖ Explain the connection between the growth of human civilisation and the tradition of writing.
	Timeline II (C.100 BCE TO 1300 CE)	❖ Understanding the periods in order of time.
II EMPIRES	**Theme 2** **An Empire across Three Continents**	❖ Explain and relate the dynamics of the Roman Empire in order to understand their polity, economy, society and culture. ❖ Analyse the implications of Roman's contacts with the subcontinent empires and discuss about slavery. ❖ Examine the domains of cultural transformation in that period & the impact of slavery.
	Theme 3 **NOMADIC EMPIRES**	❖ Identify the living patterns of nomadic pastoralist society. ❖ Trace the rise and growth of Genghis Khan in order to understand him as an oceanic ruler. ❖ Analyse socio-political and economic changes during the period of the descendants of Genghis khan ❖ Distinguish between the Mongolian people's perspective and the world's opinion about Genghis Khan
III CHANGING TRADITIONS	**Timeline III (C. 1300 TO 1700)** **Theme 4 The Three Orders**	❖ Explain the myriad aspects of feudalism with reference to first, second, third and fourth order of the society. ❖ Relate between ancient slavery and serfdom. ❖ Assess the 14th century crisis and rise of the nation states.

	Theme 5 **Changing Cultural Traditions**	❖ Analyse the causes, events, and effects of the Renaissance, Reformation, Scientific Revolution, and Age of Exploration. ❖ Relate the different facets of Italian cities to understand the characteristics of Renaissance, Humanism and Realism. ❖ Compare and contrast the condition of women in the Renaissance period. ❖ Recognise major influences on the architectural, artistic, and literary developments to understand the facades of Renaissance. ❖ Critically analyse the impact on later reforms. ❖ Evaluate the Roman Catholic Church's response to the Protestant Reformation.
IV **TOWARDS MODERNISATION**	**Timeline IV** **(C. 1700 to 2000)**	❖ Remember and understand the time frame.
	Theme 6 **Displacing Indigenous People**	❖ Evaluate the process of displacements of the native people which led to the development of America and Australia to understand their condition. ❖ Analyse the realms of settlement of Europeans in Australia and America. ❖ Compare and contrast the lives and roles of indigenous people in these continents ❖ Analyse the domains of Japanese nationalism prior and after the Second World War.
	Theme 7 **Paths to Modernization** (NOTE- Keeping in view the importance of the themes i.e. Japan, china and Korea; it is advised that all must be taught in the schools.	❖ Summarise the nationalist upsurge in China from Dr Sun Yat Sen to Mao Zedong to understand the era of Communism. ❖ Analyse the Chinese path to modernization under Deng Xioping and Zhou enlai in order to understand the transformation from rigid communism to liberal socialism. ❖ Deduce the histories of China and Japan from the phase of imperialism to modernization. ❖ Analyse the domains of Japanese nationalism prior and after the Second World War.

QUESTION PAPER DESIGN
CLASS XI

Section	Theme	MCQ MM-1	SA MM-3	LA MM-8	Source based MM-4	Total
I- EARLY SOCIETIES	Theme 1	3	1	0	1	10
II -EMPIRES	Theme 2-3	4	0	2	0	20
III-CHANGING TRADITIONS	Theme 4-5	6	2	0	2	20
IV- TOWARDS MODERNISATION	Theme 6-7	8	3	1	0	25
MAP						**05**
Total		**21x1=21**	**6x3=18**	**8x3=24**	**4x3=12**	**80**

CLASS XI
INTERNAL ASSESSMENT

PROJECT WORK **MM- 20**

INTRODUCTION

History is one of the most important disciplines in school education. It is the study of the past, which helps us to understand our present and shape our future. It promotes the acquisition and understanding of historical knowledge in breath and in depth across cultures.

The course of history in senior secondary classes is to enable students to know that history is a critical discipline, a process of enquiry, a way of knowing about the past rather than just a collection of facts. The syllabus helps them to understand the process, through which a historian collects, chooses, scrutinises, and assembles different types of evidence to write history. The syllabus in class-XI is organised around some major themes in world history. In class XII the focus shifts to a detailed study of some themes in ancient, medieval, and modern Indian history.

CBSE has decided to introduce project work in history for classes XI and XII in 2013-14 as a part of regular studies in classroom, as project work gives students an opportunity to develop higher cognitive skills. It takes students to a life beyond text books and provides them a platform to refer materials, gather information, analyse it further to obtain relevant information and decide what matter to keep and hence understand how history is constructed.

OBJECTIVES

Project work will help students to:

- develop skill to gather data from a variety of sources, investigate diverse viewpoints and arrive at logical deductions.
- develop skill to comprehend, analyse, interpret, evaluate historical evidence, and understand the limitation of historical evidence.
- develop 21st century managerial skills of co-ordination, self-direction, and time management
- learn to work on diverse cultures, races, religions, and lifestyles.
- learn through constructivism-a theory based on observation and scientific study.
- inculcate a spirit of inquiry and research.
- communicate data in the most appropriate form using a variety of techniques.
- provide greater opportunity for interaction and exploration.
- understand contemporary issues in context to our past.
- develop a global perspective and an international outlook.
- grow into caring, sensitive individuals capable of making informed, intelligent, and independent choices.
- develop lasting interest in history discipline.

GUIDELINES FOR TEACHERS

This section provides some basic guidelines for the teachers to take up projects in History. It is very necessary to interact, support, guide, facilitate and encourage students while assigning projects to them.

- The teachers must ensure that the project work assigned to the students individually/ In-groups and discussed at different stages right from assigning topic, draft review to finalization.
- Students should be facilitated in terms of providing relevant materials, suggesting websites, obtaining of required permission for archives, historical sites, etc.
- The Project Work should be suitably spaced from April to November in classes XI and XII so that students can prepare for Final Examination.
- The teachers must ensure that the students submit original work.
- Project report should be Handwritten only. (Eco-friendly materials can be used by students)

The following steps are suggested:

- Teacher should design and prepare a list of 15-20 projects and should give an option to a student to choose a project as per his/her interest.
- The project must be done individually / In-groups.
- The topic should be assigned after discussion with the students in the class to avoid repetition and should then be discussed at every stage of submission of the draft/final project.

- ❖ The teacher should play the role of a facilitator and should closely supervise the process of project completion, and should guide the children by providing necessary inputs, resources etc. to enrich the subject content.
- ❖ The Project Work needs to enhance cognitive, affective, and psychomotor domains in the learners. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning. Art integrated Activities, experiments, models, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. (NEP-2020)
- ❖ The Project work can culminate in the form of Power Point Presentation/Exhibition/Skit/ albums/ files /song and dance or culture show /story telling/debate/panel discussion, paper presentation and whichever is suitable to visually impaired candidates.
- ❖ Students can use primary sources available in city archives, Primary sources can also include newspaper cuttings, photographs, film footage and recorded written/speeches
- ❖ Secondary sources may also be used after proper authentication.
- ❖ Evaluation will be done by external examiner appointed by the Board in class XII and internal class XI.

SUGGESTIVE TOPICS FOR PROJECTS - CLASS XI

1. Facets of the Industrialization in sixteenth- eighteenth centuries.
2. Crusades: causes; rationale; events; outcomes; Holy Alliance
3. Ancient History in depth: Mesopotamia
4. Greek Philosophy and City States
5. Contributions of Roman Civilization
6. The spirit of Renaissance: Manifestation in art; Literature; Sculpture; Influence on Trading Community; Social Fabric; Philosophy; Political Values; Rational Thinking; Existentialism
7. Aspects of Development -South American States /Central American States
8. Different schools of thoughts- Realism: Humanism: Romanticism
9. Piecing together the past of Genghis Khan
10. Myriad Realms of Slavery in ancient, medieval, and modern world
11. History of Aborigines – America /Australia
12. Facets of Modernization – China /Japan/Korea

(Projects are an imperative component in enhancing students learning with the related themes. In the research project, students can go beyond the textbook and explore the world of knowledge. They can conceptualise under the embedded themes. Forms of rubrics are a significant aspect and to be discussed in the classroom itself for clear understanding of concept and for assessment.)

CLASS XII
COURSE STRUCTURE

Theory Paper

S.No.	Part	Marks
1	Themes in Indian History Part--I	25
2	Themes in Indian History Part—II	25
3	Themes in Indian History Part—III	25
4	Map	05
	Total	80

Note-The Maps available in the website of Survey of India may be used.(https://surveyofindia.gov.in/)

Themes in Indian History	**Part-I**	**25 Marks**
Sr No.	**Theme Title**	**Marks**
1	Bricks, Beads and Bones The Harappa Civilisation	25
2	Kings, Farmers and Towns Early States and Economies (*c*.600 BCE 600 CE)	
3	Kingship, Caste and class Early Societies (c. 600 BCE600 CE)	
4	Thinkers, Beliefs and Buildings Cultural Developments (c. 600 BCE 600 CE)	
Themes in Indian History	**Part-II**	**25 marks**
5	Through the eyes of Travellers Perceptions of Society (c. tenth to seventeenth centuries)	
6	Bhakti-Sufi Traditions Changes in Religious Beliefs and Devotional Texts (c. eighth to eighteenth centuries)	25
7	An Imperial Capital – Vijayanagar (c. fourteenth to sixteenth centuries)	
8	Peasants, zamindars and the States Agrarian Society and the Mughal Empire (c. sixteenth-seventeenth centuries)	

Themes in Indian History	Part-III	25 marks
09	Colonialism and The Countryside Exploring Official Archives	25
10	Rebels and Raj 1857 Revolt and its Representations	
11	Mahatma Gandhi and the National Movement Civil Disobedience and Beyond	
12	Framing of the Constitution The Beginning of a New Era	
	Including Map work of the related Themes	05
	Theory Total	80
	Project Work	20
	TOTAL	**100**

Note-The Maps available in the official website of Govt., of India may be used

CLASS XII
COURSE CONTENT

Theme No. and Title	Learning outcome with specific competencies
Themes in Indian History Part – I	
1 **BRICKS, BEADS AND BONES The Harappan Civilisation**	❖ Investigate, explore and interpret the early urban centres and social institutions. ❖ State and deduce the multi-lateral aspects of Harappan civilisation to understand the first civilization of the world. ❖ Investigate and interpret historical and contemporary sources and viewpoints of ASI and historians on Harappa.
2 **KINGS, FARMERS AND TOWNS Early States and Economies (c.600 BCE 600 CE)**	❖ Critically evaluate and interpret major trends in the political and economic history of the subcontinent. ❖ Decode inscriptional evidence. ❖ Analyse inscriptional evidences and the ways in which these have shaped the understanding of political and economic processes.

3 **KINSHIP, CASTE AND CLASS** **Early Societies** **(c. 600 BCE 600 CE)**	❖ Examine, analyse the issues of social history. ❖ Analyse social norms in order to understand the perspectives of society given in the scriptures of ancient India. ❖ Examine the varied dimensions explored by historians in order to understand dynamic approach of Mahabharata.
4 **THINKERS, BELIEFS AND BUILDINGS** **Cultural Developments** **(c. 600 BCE 600 CE)**	❖ Infer and compare the major religious developments in early India. ❖ Elucidate the rich religious sculpture and infer the stories hidden in it. ❖ Create a picture album of the Buddhist Sculpture.
Themes in Indian History Part—II	
5 **THROUGH THE EYES OF TRAVELLERS** **Perceptions of Society** **(c. tenth to seventeenth centuries)**	❖ Understand salient features of social histories described by the travellers and apply the learning in real life. ❖ Elucidating the accounts of foreign travellers in order to understand the social political and economic life during the tenure of different rulers in the medieval period.
6 **BHAKTI –SUFI TRADITIONS** **Changes in Religious Beliefs and Devotional Texts** **(c. eighth to eighteenth centuries)**	❖ Understand the religious developments. ❖ Summarise the philosophies of different Bhakti and Sufi saints to understand the religious developments during medieval period. ❖ Comprehend the religious movement in order to establish unity, peace harmony and brotherhood in society.
7 **AN IMPERIAL CAPITAL: VIJAYANAGARA** **(c. fourteenth to sixteenth centuries)**	❖ Students will be able to Classify the distinctive architectural contributions of the Vijayanagar empire to comprehend the richness of mingled cultures of deccan India. ❖ Analyse accounts of foreign traveller's on Vijayanagar in order to interpret political, social and cultural life of the city. ❖ Assess and appreciate the city planning, water management system, administration of the rulers.

8 **PEASANTS, ZAMINDARS AND THE STATE** **Agrarian Society and the Mughal Empire (c. sixteenth seventeenth centuries)**	❖ Comprehend the facets of agrarian developments in order to understand the relationship between the state and the agriculture during Mughal period. ❖ Compare and contrast the agrarian changes occurred during sixteenth and seventeenth centuries. ❖ Make a table and bring out the differences in the agrarian sector.
Themes in Indian History Part—III	
9 **COLONIALISM AND THE COUNTRYSIDE** **Exploring Official Archives**	❖ Evaluate the revenue systems introduced by the British to understand the economic aspects of colonization in India. ❖ Analyse the colonial official records& reports to understand the divergent interest of British and Indians. ❖ Find solution to be taken to protect the peasants and artisans in this century.
10 **REBELS AND THE RAJ** **1857 Revolt and its Representations**	❖ Examine the events of 1857. ❖ Correlate the Planning and coordination of the rebels of 1857 to infer its domains and nature. ❖ Examine the momentum of the revolt to understand its spread. ❖ Analyse how revolt created vision of unity amongst Indians. ❖ Interpret visual images to understand the emotions portrayed by the nationalist and British.
11 **MAHATMA GANDHI AND THE NATIONALIST MOVEMENT** **Civil Disobedience and Beyond**	❖ Understand the nationalist movement in chronological order. ❖ Correlate the significant elements of the nationalist movement and the nature of ideas, individuals, and institutions under the Gandhian leadership. ❖ Debate on the significant contributions of Gandhi to understand his mass appeal for nationalism. ❖ Explore the ways of interpreting historical source such as newspapers, biographies and autobiographies diaries, letters
12 **FRAMING THE CONSTITUTION** **The Beginning of a New Era**	❖ Highlight the role of Constituent Assembly to understand functionaries in framing the constitution of India. ❖ Analyse how debates and discussions around important issues in the Constituent Assembly shaped our Constitution

Note: This is not an exhaustive list. For reflective teaching- learning process, explicit Learning Objectives and Outcomes can be added by teachers during the course-delivery for student's real learning.

S. No	Page No.	Part – I Maps
1	2	**Mature Harappan sites:** Harappa, Banawali, Kalibangan, Balakot, Rakhigarhi, Dholavira, Nageshwar, Lothal, Mohenjodaro, Chanhudaro, Kot Diji.
2	3	**Mahajanapada and cities:** Vajji, Magadha, Kosala, Kuru, Panchala, Gandhara, Avanti, Rajgir, Ujjain, Taxila, Varanasi.
3	33	**Distribution of Ashokan inscriptions:** • Pillar inscriptions – Sanchi, Topra, Meerut Pillar and Kaushambi. • Kingdom of Cholas, Cheras and Pandyas.
4	43	**Important kingdoms and towns:** • Kushanas, Shakas, Satavahanas, Vakatakas, Guptas • Cities/towns: Mathura, Kanauj, Puhar, Braghukachchha, Shravasti, Rajgir, Vaishali, Varanasi, Vidisha
5	95	**Major Buddhist Sites:** Nagarjunakonda, Sanchi, Amaravati, Lumbini, Bharhut, Bodh Gaya, Ajanta
S. No	**Page No.**	**Part II - Maps**
6	174	Bidar, Golconda, Bijapur, Vijayanagar, Chandragiri, Kanchipuram, Mysore, Thanjavur, Kolar, Tirunelveli
7	214	**Territories under Babur, Akbar and Aurangzeb:** • Delhi, Agra, Panipat, Amber, Ajmer, Lahore, Goa.
S. No	**Page No.**	**Part III - Maps**
8	287	**Territories/cities under British Control in1857**: Punjab, Sindh, Bombay, Madras Berar, Bengal, Bihar, Orissa, Surat, Calcutta, Patna, Allahabad
9	260	**Main centres of the Revolt of 1857**: Delhi, Meerut, Jhansi, Lucknow, Kanpur, Azamgarh, Calcutta, Benaras, Gwalior, Jabalpur, Agra, Awadh
10		**Important centres of the National Movement**: Champaran, Kheda, Ahmedabad, Benaras, Amritsar, Chauri Chaura, Lahore, Bardoli, Dandi, Bombay (Quit India Resolution), Karachi

Note-The Maps available in the official website of Govt., of India may be used.

CLASS XII
QUESTION PAPER DESIGN

Book	MCQ		SA		LA		Source Based		Map	Total	
	No of questions	MM	No of questions	MM	No of questions	MM	No of questions	MM		Theory	Internal
Part I	7	1	2	3	1	8	1	4		25	
Part II	7	1	2	3	1	8	1	4		25	
Part III	7	1	2	3	1	8	1	4		25	
Map									05	05	
Project										80	20
Total	**7x3=21**		**6x3=18**		**3x8=24**		**3x4=12**		**1x5=5**	**100 Marks**	

WEIGHTAGE BASED ON COMPETENCIES

Competencies	Marks	%
Knowledge Remembering previously learned material by recalling facts, terms, basic concepts, and answers.	21	26.25
Understanding demonstrating understanding of facts and ideas by organizing, translating, interpreting, giving descriptions and stating main ideas.	18	22.50
Applying and Analyzing: applying acquired knowledge, facts, techniques and rules and solving the problems.	24	30
Formulating, Evaluating and Creating skills: Examining, making inferences and finding evidence to support generalizations; Presenting and defending opinions by making judgments about information and piling information	12	15
Map skills	05	6.25

Note-The Maps available in the official website of Govt., of India may be used

INTERNAL ASSESSMENT

PROJECT WORK **MM-20**

INTRODUCTION

History is one of the most important disciplines in school education. It is the study of the past, which helps us to understand our present and shape our future. It promotes the acquisition and understanding of historical knowledge in breath and in depth across cultures.

The course of history in senior secondary classes is to enable students to know that history is a critical discipline, a process of enquiry, a way of knowing about the past rather than just a collection of facts.

The syllabus helps them to understand the process, through which a historian collects, chooses, scrutinizes and assembles different types of evidence to write history.
The syllabus in class-XI is organised around some major themes in world history. In class XII the focus shifts to a detailed study of some themes in ancient, medieval, and modern Indian history.

CBSE has decided to introduce project work in history for classes XI and XII in 2013-14 as a part of regular studies in classroom, as project work gives students an opportunity to develop higher cognitive skills. It takes students to a life beyond text books and provides them a platform to refer materials, gather information, analyse it further to obtain relevant information and decide what matter to keep and hence understand how history is constructed.

OBJECTIVES

Project work will help students:

- To develop skill to gather data from a variety of sources, investigate diverse viewpoints and arrive at logical deductions.
- To develop skill to comprehend, analyse, interpret, evaluate historical evidence, and understand the limitation of historical evidence.
- To develop 21st century managerial skills of co-ordination, self-direction, and time management.
- To learn to work on diverse cultures, races, religions, and lifestyles.
- To learn through constructivism-a theory based on observation and scientific study.
- To inculcate a spirit of inquiry and research.
- To communicate data in the most appropriate form using a variety of techniques.
- To provide greater opportunity for interaction and exploration.
- To understand contemporary issues in context to our past.
- To develop a global perspective and an international outlook.
- To grow into caring, sensitive individuals capable of making informed, intelligent, and independent choices.
- To develop lasting interest in history discipline.

GUIDELINES FOR TEACHERS

- This section provides some basic guidelines for the teachers to take up projects in History. It is very necessary to interact, support, guide, facilitate and encourage students while assigning projects to them.
- The teachers must ensure that the project work assigned to the students individually/ In-groups and discussed at different stages right from assigning topic, draft review to finalization

- ❖ Students should be facilitated in terms of providing relevant materials, suggesting websites, obtaining of required permission for archives, historical sites, etc.
- ❖ The Project Work should be suitably spaced from April to November in classes XI and XII so that students can prepare for Final Examination.
- ❖ The teachers must ensure that the students submit original work.
- ❖ Project report should be Handwritten only. (Eco-friendly materials can be used by students)

The following steps are suggested:

1. Teacher should design and prepare a list of 15-20 projects and should give an option to a student to choose a project as per his/ her interest.
2. The project must be done individually/ In-groups.
3. The topic should be assigned after discussion with the students in the class to avoid repetition and should then be discussed at every stage of submission of the draft/final project work.
4. The teacher should play the role of a facilitator and should closely supervise the process of project completion, and should guide the children by providing necessary inputs, resources etc. to enrich the subject content.
5. The Project Work needs to enhance cognitive, affective, and psychomotor domains in the learners. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning. Art integrated Activities, experiments, models, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. (NEP-2020) The Project work can culminate in the form of Power Point Presentation/ Exhibition/ Skit/albums/files/song and dance or culture show /story telling/debate/panel discussion, paper presentation and whichever is suitable to visually impaired candidates.
6. Students can use primary sources available in city archives, Primary sources can also include newspaper cuttings, photographs, film footage and recorded written/speeches. Secondary sources may also be used after proper authentication.
7. Evaluation will be done by external examiner appointed by the Board in class XII and internal in class XI.

Note: The project reports are to be preserved by the school till the final results are declared, for scrutiny by CBSE**.**

A FEW SUGGESTIVE TOPICS FOR CLASS XII PROJECTS

1. The Indus Valley Civilization-Archaeological Excavations and New Perspectives
2. The History and Legacy of Mauryan Empire
3. “Mahabharat”- The Great Epic of India
4. The History and Culture of the Vedic period
5. Buddha Charita
6. A Comprehensive History of Jainism

7. Bhakti Movement- Multiple Interpretations and Commentaries.
8. The Mystical Dimensions of Sufism
9. Global Legacy of Gandhian Ideas
10. The Architectural Culture of the Vijayanagar Empire
11. Life of Women in the Mughal Rural Society
12. Comparative Analysis of the Land Revenue Systems Introduced by the Britishers in India
13. The Revolt of 1857- Causes; Planning & Coordination; Leadership, Vision of Unity
14. The Philosophy of Guru Nanak Dev
15. The Vision of Kabir
16. An Insight into the Indian Constitution
17. Comparative Study of Stupas and Pillar Edicts
18. Comparative Study of Mughal and Vijayanagar Architecture

(Projects are an imperative component in enhancing students learning with the related themes. In the research project, students can go beyond the textbook and explore the world of knowledge. They can conceptualise under the embedded themes. Forms of rubrics are a significant aspect and to be discussed in the classroom itself for clear understanding of concept & for assessment.

Note: Please refer Circular No. Acad.16/2013 dated 17.04.2013 for complete guidelines.

Kindly refer to the guidelines on project work for classes XI and XII given below: - One Project to be done throughout the session, as per the existing scheme.

1. Steps involved in the conduct of the project: Students may work upon the following lines as suggested**:**

1. Choose a Title/Topic
2. Need of the Study, Objective of the Study
3. Hypothesis
4. Content -Timeline, Maps, Mind maps, Pictures, etc. (Organization of Material/Data Present Material/Data)
5. Analysing the Material/Data for Conclusion
6. Draw the Relevant Conclusion
7. Bibliography

2. Expected Checklist for the Project Work:

1. Introduction of topic/ title
2. Identifying the causes, events, consequences and/or remedies
3. Various stakeholders and effect on each of them
4. Advantages and disadvantages of situations or issues identified
5. Short-term and long-term implications of strategies suggested during research
6. Validity, reliability, appropriateness, and relevance of data used for research work and for presentation in the project file
7. Presentation and writing that is succinct and coherent in project file
8. Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

3. Assessment of Project Work:

1. Project Work has broadly the following phases: Synopsis/ Initiation, Data Collection, Data Analysis and Interpretation, Conclusion.
2. The aspects of the project work to be covered by students can be assessed during the academic year.
3. 20 marks assigned for Project Work can be divided in the following manner:

Month	Periodic Work	Assessment Rubrics	Marks
April-July	Instructions about Project Guidelines, Background reading Discussions on Theme and Selection of the Final Topic, Initiation/ Synopsis	Introduction, Statement of Purpose/ Need and objectives of the study, Hypothesis/ Research Question, Review of Literature, Presentation of Evidence, Methodology, Questionnaire, Data	6
August - October	Planning and organization: forming an action plan, feasibility, or baseline study, Updating/ modifying the action plan, Data Collection	Significance and relevance of the topic; challenges encountered while conducting the research.	5
November-January	Content/data analysis and interpretation. Conclusion, Limitations, Suggestions, Bibliography, Annexures and overall presentation of the project	Content analysis and its relevance in the current scenario. Conclusion, Limitations, Bibliography, Annexures and Overall P resentation.	5
January - February	Final Assessment and VIVA by both Internal and External Examiners	External/ Internal Viva based on the project	4
TOTAL			**20**

4. Viva-Voce

1. At the end, each learner will present the research work in the Project File to the External and Internal examiner.
2. The questions should be asked from the Research Work/ Project File of the learner.
3. The Internal Examiner should ensure that the study submitted by the learner is his/her own original work. In case of any doubt, authenticity should be checked and verified.

GEOGRAPHY
SUBJECT CODE: 029
CLASSES XI-XII (2026-27)

BACKGROUND/ RATIONALE

Geography is introduced as an elective subject at the second phase of secondary stage. After ten years of general education, students branch out at the beginning of this stage and are exposed to the rigors of the discipline for the first time. Being an entry point for the higher education, students choose Geography for pursuing their academic interest and, therefore, need a broader and deeper understanding of the subject. For others, geographical knowledge is useful in daily lives because it is a valuable medium for the education of young people. Its contribution lies in the content, cognitive processes, skills and values that Geography promotes and thus helps the students explore, understand and evaluate the environmental and social dimensions of the world in a better manner.

Since Geography explores the relationship between people and their environment, it includes studies of physical and human environments and their interactions at different scales-local, state/region, nation and the world. The fundamental principles responsible for the varieties in the distributional pattern of physical and human features and phenomena over the earth's surface need to be understood properly. Application of these principles would be taken up through selected case studies from the world and India. Thus, the physical and human environment of India and study of some issues from a geographical point of view will be covered in greater detail. Students will be exposed to different methods used in geographical investigations.

LEARNING OBJECTIVES

The course in Geography will help learners to:

- Familiarise with key concepts, terminology and core principles of Geography.
- Describe locations and correlate with Geographical Perspectives.
- List/describe what students might see, hear and smell at a place.
- List/describe ways a place is linked with other places.
- Compare conditions and connections in one place to another.
- Analyse/ describe how conditions in one place can affect nearby places.
- Identify regions as places that are similar or connected.
- Describe and interpret the spatial pattern features on a thematic map.
- Search for, recognize and understand the processes and patterns of the spatial arrangement of the natural features as well as human aspects and phenomena on the earth's surface.
- Understand and analyse the interrelationship between physical and human environments and utilize such knowledge in reflecting on issues related to community.

- Apply geographical knowledge and methods of inquiry to emerging situations or problems at different levels-local, regional, national and global.
- Develop geographical skills, relating to collection, processing and analysis of spatial data/ information and preparation of report including maps and graphs and use of computers wherever possible; and to be sensitive to issues.
- The learner will develop the competency to analyse, evaluate, interpret and apply the acquired knowledge to determine the environmental issues effectively.

CLASS XI
COURSE STRUCTURE

Book- Fundamentals of Physical Geography

Chapter No.	Chapter name	Weightage
Unit-I Geography as a Discipline		
1	Geography As a Discipline	3
Unit-II The Earth		
2	The Origin and Evolution of the Earth	9
3	Interior of the Earth	
4	Distribution of oceans and continents	
Unit-III Landforms		
5	Geomorphic Processes	6
6	Landform and their Evolution	
Unit-IV Climate		
7	Composition and Structure of Atmosphere	8
8	Solar Radiation, Heat balance and Temperature	
9	Atmospheric Circulations and Weather Systems	
10	Water in the Atmosphere	
11	World Climate and Climate Change (To be tested through internal assessments in the form of project and presentation)	
Unit-V Water (Oceans)		
12	Water (Oceans)	4
13	Movements of Ocean Water	

Unit-VI Life on the Earth		
14	Biodiversity and Conservation (To be tested through internal assessments in the form of project and presentation)	_
	Map Work	5
Total		**35**

Book-India Physical Environment

Chapter No.	**Chapter Name**	**Weightage**
Unit-I Introduction		
1	India- Location	5
Unit-II Physiography		
2	Structure and Physiography	13
3	Drainage System	
Unit-III Climate Vegetation and Soil		
4	Climate	12
5	Natural Vegetation	
Unit-IV Natural Hazards and Disasters: Causes Consequences and Management		
6	Natural Hazards and Disasters (To be tested through internal assessment in the form of Projects and presentation)	_
	Map	5
Total		**35**

Book-Geography Practical Part I

Chapter No.	**Chapter Name**	**Weightage**
1	Introduction to Maps	3
2	Map Scale	4
3	Latitude Longitude and Time	4
4	Map Projections	5
5	Topographical Maps	4
6	Introduction to Remote Sensing	5
	Practical file and Viva	5
	Total	**30**

COURSE CONTENT – XI

Book- Fundamentals of Physical Geography

Unit 1: Geography as a Discipline	**Chapter 1 Geography as a Discipline** • Introduction to Geography as a discipline • Geography as an integrating discipline: Spatial and Temporal synthesis • Approaches to study Geography: Systematic and Regional • Branches of Geography: Physical Geography, Human Geography and Bio Geography • Physical Geography and its importance.
Unit 2: The Earth	**Chapter 2 The Origin and Evolution of The Earth** • Origin and evolution of the earth • Early theories: Origin of the Earth • Modern Theories: Origin of the universe • Formation of Stars and Planets • Evolution of the Earth: Lithosphere, Atmosphere and Hydrosphere • Origin of Life **Chapter 3 Interior of the Earth** • Sources of Information about the Interior of the Earth (Direct and Indirect) • Earthquakes: Earthquake Waves, Shadow zones, Types, Scales to measure earthquake intensity, effects, frequency of earthquake occurrences • Structure of the Earth • Volcanoes and Volcanic landforms **Chapter 4 Distribution of Oceans and Continents** • Continental Drift Theory, and Evidence in support of Continental Drift and Force for Drift • Post- Drift Studies • Ocean Floor Configuration • Distribution of Earthquakes and Volcanoes • Concept of Seafloor Spreading • Plate Tectonics: Types of Plate boundaries, Rate and forces for the Plate Movement • Movement of the Indian Plate
Unit 3: Landforms	**Chapter 5 Geomorphic processes** • Geomorphic processes: Exogenic and Endogenic • Endogenic Process: Diastrophism, Volcanism • Exogenic Processes: Weathering, Landslides. • Soil: Processes and factors of Soil Formation **Chapter 6 Landforms and their Evolution** • **Running water:** Erosional and Depositional Landforms • **Wind:** Erosional and Depositional Landforms

Unit 4: Climate	**Chapter 7 Composition and Structure of Atmosphere** • Atmosphere- composition and structure; elements of weather and climate **Chapter 8 Solar Radiation, Heat Balance and Temperature** • Solar radiation: Variability of Insolation. • Processes of Heating and Cooling of Atmosphere • Terrestrial Radiation • Heat budget of the earth • Temperature- Factors controlling temperature; Horizontal distribution of temperature; Inversion of temperature **Chapter 9 Atmospheric Circulation and Weather Systems** • Atmospheric Pressure: Horizontal and Vertical Variation of Pressure • Forces affecting velocity and direction of Wind • General Circulation of the atmosphere: Pressure belts; Winds: Planetary, Seasonal and Local; Air masses and Fronts; Tropical and Extratropical cyclones; Thunderstorms and Tornadoes **Chapter 10 Water in the Atmosphere** • Humidity-Absolute and Relative humidity • Evaporation and condensation • Different Forms of Condensation: dew, frost, fog, mist and cloud; • Precipitation • Types of Rainfall and world distribution of rainfall **Chapter 11 World Climate and Climate Change** **(To be tested through internal assessments in the form of project and presentation)**
Unit 5: Water (Oceans)	**Chapter 12 Water (Oceans)** • Hydrological Cycle • Major and Minor Relief Features of the Ocean Floor • Temperature and Salinity of Ocean Waters: Factors, Horizontal and Vertical distribution of temperature and Salinity **Chapter 13 Movements of Ocean Water** • Movements of ocean water- Waves, Tides and Currents.
Unit 6: Life on the Earth	**Chapter 14 Biodiversity and Conservation** **(To be tested through internal assessments in the form of project and presentation)**
Book- India- Physical Environment	
Unit 1: Introduction	**Chapter 1** India — Location, Size, Latitudinal and Longitudinal extent, Indian Standard time, India and its neighbours
Unit 2: Physiography	**Chapter 2 Structure and Physiography** • Physiographic Divisions: (1) The Northern and North-eastern

	Mountains (2) The Northern Plain (3) The Peninsular Plateau (4) The Indian Desert (5) The Coastal Plains (6) The Islands. **Chapter 3 Drainage System** • Drainage patterns • Concepts of River basin, Catchment Area, Watershed • Drainage and River systems of India: the Himalayan and the Peninsular • Extent of Usability of River Water- linking of rivers, problems in using river water and water pollution
Unit 3: Climate, Vegetation and Soil	**Chapter 4 Climate** • Weather and climate • Unity and diversity in the Monsoon Climate • Factors determining the climate of India • The Nature and characteristics of Indian Monsoon • The Rhythm of Seasons • Distribution of Rainfall • Monsoon and the Economic Life in India • Global Warming **Chapter 5 Natural Vegetation** • Natural vegetation – Introduction • Forest types and distribution • Conservation of forests • Wildlife; conservation; biosphere reserves
Unit 4: Hazards and Disasters: Causes, Consequences and Management	**Chapter 6 Natural Hazards and Disasters** **(To be tested through internal assessment in the form of Projects and presentation)**
Book- Geography Practical Part I	
Chapter 1 Introduction to Maps • Essentials of map making • History of map making • Maps -types • Uses of maps **Chapter 2 Map Scale** • Scales-methods and construction • Conversion of scale **Chapter 3 Latitude, Longitude and Time** • Drawing of Parallels of latitude and Meridians of longitude • Longitude and time	

- International date line

Chapter 4 Map Projections

- Map projection- typology, construction and properties of projection: Conical with one standard parallel and Mercator's projection. (only two projections)

Chapter 5 Topographical Maps

- Study of topographic maps (1 : 50,000 or 1 : 25,000 Survey of India maps); Conventional Symbols, contour cross section and identification of landforms- slopes, hills, valleys, waterfall, cliffs; distribution of settlements

Chapter 6 Introduction to Remote Sensing

- Satellite imageries, stages in remote sensing data-acquisition, platform and sensors and data products, (photographic and digital)

Map Work

Book- Fundamentals of Physical Geography

(Map items for locating and labelling only on the outline political world map)

<table>
<tr><th>Chapter</th><th>Map item (Map present on official website of Govt. of India should be used)</th></tr>
<tr><td>Chapter 4 Distribution of oceans and continents</td><td>• Political Map of all Continents of the world.
• Major Oceans of the world: Indian Ocean, Pacific Ocean, Atlantic Ocean, Arctic Ocean, Southern Ocean · Major lithospheric plates and Minor lithospheric plates, Ring of fire (Pacific Ocean), Mid-Atlantic Ridge.</td></tr>
<tr><td>Chapter 9 Atmospheric Circulations and
Weather Systems</td><td>Major Hot Deserts of the world:
• Mojave Desert- Nevada, US
• Patagonian Desert- Argentina
• Sahara- Africa
• Gobi Desert- Mongolia, Asia
• Thar desert- India
• Great Victoria Desert- Australia</td></tr>
<tr><td>Chapter 12
Water (Oceans)</td><td>• Major Seas
• Black sea
• Baltic sea
• Caspian Sea
• Mediterranean Sea
• North Sea
• Red sea
• Bay of Fundy (Canada)-Famous for the highest tides in the world</td></tr>
<tr><td>Chapter 13 Movements of Ocean Water</td><td>Ocean Currents
<table><tr><th>Cold currents</th><th>Warm currents</th></tr><tr><td>• Humboldt c.
• California c.
• Falkland c.</td><td>• Alaska c.
• Brazilian c.
• Agulhas c.</td></tr></table></td></tr>
</table>

	• Canaries c. • West Australian c. • Oyashio c. • Labrador c	• Kuroshio c. • Gulf stream c.
Chapter 14 Biodiversity and Conservation	**Ecological hotspots** • Eastern Himalaya, India • Western ghats, India • Indonesia, Asia • Eastern Madagascar, Africa • Upper Guinean forests, Africa • Atlantic forest, Brazil • Tropical Andes	
Map Work **Book- India Physical Environment** **(Map items for locating and labelling only on the outline political map of India)**		
Chapter	**Map item (Map present on official website of Govt. of India should be used)**	
Chapter-1 India- Location	• Latitudinal extent of India • Longitudinal extent of India • Standard Meridian of India • Important latitude passing through India (Tropic of Cancer) • Southern Most Point of mainland of India (Kanya Kumari)	
Chapter-2 Structure and Physiography	• Mountains: Karakoram Range, Garo- Khasi- Jaintia hills, Aravalli Range, Vindhyan Range, Satpura Range, Western ghats & Eastern ghats • Peaks: K2, Kanchenjunga, Nandadevi, Nanga Parvat, Namcha Barwa and Anaimudi • Passes: Shipkila, Nathula, Palghat, Bhor ghat and Thal ghat • Plateaus: Malwa, Chhotnagpur, Meghalaya and Deccan Plateau. • Coastal Plains: Saurashtra, Konkan, North and South Kanara, Malabar, Coromandel and Northern Circars • Islands: Andaman & Nicobar Islands and Lakshadweep Islands	
Chapter-3 Drainage System	• Rivers: Brahmaputra, Indus, Satluj, Ganga, Yamuna, Chambal, Damodar, Mahanadi, Krishna, Kaveri,Godavari, Narmada, Tapti and Luni • Lakes: (Identification)Wular, Sambhar, Chilika, Kolleru, Pulicat & Vembanad • Straits, Bays , Gulfs: Palk Strait, Rann of Kachchh, Gulf of Kachchh, Gulf of Mannar & Gulf of Khambat	
Chapter-4 Climate	• Area with highest temperature in India • Area with lowest temperature in India • Area with highest rainfall in India • Area with lowest rainfall in India	

Chapter-5 Natural Vegetation	(Identification on an outline map of India) Tropical evergreen, Tropical deciduous, Tropical thorn, Montane and Littoral/ Swamp forests. Wildlife reserves: (locating and labeling) • National Parks: Corbett, Kaziranga, Ranthambore. Shivpuri, Simlipal • Bird Sanctuaries: Keoladeo Ghana and Ranganathittu • Wild life Sanctuaries: Periyar, Rajaji, Mudumalai, Dachigam,

Note: The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. This reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

Book: Fundamentals of Physical Geography

- **Minerals and Rocks-** Major types of rocks and their characteristics

Guidelines for Internal Assessment/ Geography Practical

1. A practical file must be prepared by students covering all the topics prescribed in the practical syllabus.
2. The file should be completely handwritten with a cover page, index page and acknowledgment.
3. All practical works should be drawn neatly with appropriate headings, scale, index etc. Data can be taken from the NCERT textbook.
4. The practical file will be assessed at the time of term end practical examinations.
5. A written exam of 25 marks will be conducted based on prescribed practical syllabus.
6. Viva will be conducted based on practical syllabus only.
7. Written Exam -25 Marks
8. Practical file- 03 Marks
9. Viva- 02 Marks

CLASS: XI

Prescribed Books:

1.Fundamentals of Physical Geography, Class XI, Published by NCERT
2.India, Physical Environment, Class XI, Published by NCERT
3.Practical Work in Geography Part I, Class XI, Published by NCERT

Links for NCERT textbooks:

1. **https://ncert.nic.in/textbook.php?kegy2=0-14**
2. **https://ncert.nic.in/textbook.php?kegy1=0-6**
3. **https://ncert.nic.in/textbook.php?kegy3=0-6**

Note:

1. The above textbooks are also available in Hindi medium.
2. Kindly refer to the latest editions of all NCERT Textbooks.

CLASS XII

COURSE STRUCTURE

Book-India People and Economy

Book- Fundamental of Human Geography		
Chapter No.	**Chapter Name**	**Weightage**
Unit I		
1	Human Geography	3
Unit II		
2	The World Population Density, Distribution and Growth	8
3	Human Development	
Unit III		
4	Primary Activities	19
5	Secondary Activities	
6	Tertiary and Quaternary Activities	
7	Transport, Communication and Trade	
8	International Trade	
Map Work (Based on identification of features on World Political Map)		**5**
Total		**35**

Chapter No.	**Chapter Name**	**Weightage**
Unit I		
1	Population Distribution, Density, Growth and Composition	5
Unit II		
2	Human Settlements	3
Unit III		
3	Land Resources and Agriculture	10
4	Water Resources	

5	Mineral and Energy Resources	
6	Planning and Sustainable Development in Indian Context	
Unit IV		
7	Transport and Communication	7
8	International Trade	
Unit V		
9	Geographical Perspective on Selected Issues and Problems	5
Map Work (Based on locating and labelling on a political map of India)		5
Total		**35**

Book- Geography Practical II

Chapter No.	**Chapter Name**	**Weightage**
1	Data-its Source and Compilation	18
2	Data Processing	
3	Graphical Representation of Data	
4	Spatial Information Technology	7
Practical Record Book and Viva Voce		**5**
Total		**30**

COURSE CONTENT- XII

Book: Fundamentals of Human Geography	
Unit 1:	**Chapter-1 Human Geography:** Nature and Scope ● Introduction to Human Geography ● Approaches to study Human Geography Regional and Systematic Geography, Dualism ● Nature of Human Geography ● Naturalisation of Humans and Humanisation of Nature ● Schools of thought in Human Geography ● Fields and subfields of Human Geography
Unit 2:	**Chapter- 2 The World Population Distribution, Density and Growth** ● Population-distribution and density ● Factors influencing the distribution of population ● Population Growth ● Components of Population Change

	● Demographic Transition ● Population Control Measures **Chapter- 3 Human Development** ● Human development - concept; selected indicators ● Growth and Development ● The four pillars of Human Development ● Approaches to Human Development ● Measuring Human Development- HDI, HPI and GNH ● International comparisons
Unit 3:	**Chapter- 4 Primary Activities** Concept and types: ● Hunting and Gathering, Pastoralism; Nomadic Herding, Commercial Livestock Rearing ● Types of agriculture: ❖ Primitive Subsistence ❖ Intensive Subsistence ● Commercial Agriculture ❖ Plantation Agriculture ❖ Extensive Commercial Grain Cultivation ❖ Mixed Farming ❖ Dairy farming ❖ Mediterranean Agriculture ❖ Market Gardening and Horticulture ❖ Cooperative Farming ❖ Collective Farming ● Mining, factors affecting mining ● Methods of Mining **Chapter- 5 Secondary Activities** ● Manufacturing: Characteristics of Modern large-Scale Manufacturing ● Factors influencing industrial location ● Classification of manufacturing Industries: On the basis of Size, Inputs /raw material, Output /Products and Ownership ● Concept of High-tech Industry **Chapter- 6 Tertiary Activities** ● Tertiary activities-concept and types ● Trade and Commerce: Retail and Wholesale trading, Transport, Factors Affecting Transport ● Communication ● Services ● People engaged in tertiary activities ● Tourism, Major tourist regions ● Tourist attractions - some examples from selected countries ● Medical Services for Overseas Patients in India ● Quaternary and Quinary activities-concept ● The Digital Divide **Chapter- 7 Transport and Communication** ● Transport ● Modes of Transportation ● Land transport: Roadways, Highways, Road Density, Border Roads. ● Railways: Trans-continental Railways: Trans-Siberian, Trans Canadian,

	Australian Trans Continental ● Water Transport: Important Sea Routes, Shipping Canals, Inland waterways ● Air transport: Inter-Continental air routes ● Pipelines ● Communications: Satellite Communications and Cyber Space- Internet **Chapter- 8 International Trade** ● History of International trade ● Why Does International Trade Exist? ● Basis of International Trade ● Balance of Trade ● Types of International Trade: Bilateral and Multi-lateral trade ● Case for Free Trade ● Concept of Dumping ● World Trade Organisation ● Regional Trade Blocs ● Concerns Related to International Trade ● Gateways of International trade: Ports ● Types of Port
Book: India: People and Economy	
Unit 1:	**Chapter- 1 Population Distribution, Density, Growth and Composition** • Distribution of Population • Density of Population • Growth of population • Four distinct phases of population growth • Regional Variation in Population Growth • Population Composition: Rural – Urban Composition, Linguistic Composition, Religious Composition • Composition of Working Population • Promoting Gender Sensitivity through 'Beti Bachao–Beti Padhao' Social Campaign.
Unit 2:	**Chapter- 2 Human Settlements** • Rural settlements - types and distribution • Urban settlements - types, distribution • Evolution of Towns in India • Urbanisation in India • Functional Classification of Towns • Smart Cities Mission
Unit 3:	**Chapter- 3 Land Resources and Agriculture** • Land resources- general land use • Land use categories • Land-use Changes in India • Common Property Resources • Agricultural Land Use in India • Cropping Seasons in India • Types of Farming • Geographical conditions and distribution of major crops (Wheat, Rice, Tea, Coffee, Cotton, Jute, Sugarcane and Rubber);

	• Agricultural development in India • Growth of Agricultural Output and Technology • Problems of Indian Agriculture **Chapter- 4 Water Resources** • Water resources- Surface water and Groundwater Resources • Lagoons and Backwaters • Water Demand and Utilisation - irrigation, domestic, industrial and other uses; • Emerging Water Problems: Deterioration of Water Quality • Water Conservation and Management; Prevention of Water Pollution; Rain water harvesting and Watershed management **Chapter- 5 Mineral and Energy Resources** • Mineral Resources: Introduction and Types • Major mineral belts of India • Distribution of Ferrous Minerals (Iron ore and Manganese), Non-Ferrous Minerals (Bauxite and Copper); Non-metallic minerals (Mica) • Energy Resources: Conventional sources (Coal, Petroleum and Natural gas) and non-conventional sources (Nuclear, Solar, Wind, Tidal and Wave and Geothermal and Bio energy) • Conservation of Mineral Resources **Chapter - 6 Planning and Sustainable Development in Indian Context** ● Planning- Introduction ● Target Area Planning: Hill Area Development Programme, Drought Prone Area Programme. ● Concept of Sustainable Development ● Case Studies – 1. Integrated Tribal Development Project in Bharmaur Region 2. Indira Gandhi Canal (Nahar) Command Area
Unit 4:	**Chapter- 7 Transport and Communication** ● Means of Transport: Land (Road transport, Rail transport and Oil and Gas pipelines), Water transport (Inland waterways and Oceanic routes) and Air transport ● Communication Networks- Personal and Mass Communication Systems **Chapter- 8 International Trade** • Changing Pattern of the Composition of India's Exports and Import • Direction of Trade • Sea Ports as Gateways of International Trade • Major Seaports of India along with their hinterlands. • Airports
Unit 5:	**Chapter- 9 Geographical Perspective on Selected Issues and Problems** ● Environmental pollution- Introduction and types ● Urban-waste disposal ● Rural-Urban Migration: Case Study ● Problems of Slums ● Land degradation: Case study

Book- Geography Practical Part II

Chapter- 1 Data – Its Source and Compilation

- What is Data, Sources of data: Primary, Secondary and Unpublished sources.
- Tabulation and Classification of Data
- Grouping of Data
- Frequency Polygon

Chapter- 2 Data Processing

- Tabulating and processing of data
- Measures of Central Tendency: Mean, Median and Mode
- Comparison of Mean, Median and Mode

Chapter- 3 Graphical Representation of Data

- Representation of data- General rules for drawing diagrams, graphs and maps, construction of line graphs, polygraphs, simple bar diagrams, line and bar diagram, Multiple bar, Compound bar, Pie diagram, Flowchart
- Thematic maps; Construction of Dot Map; Choropleth Map and Isopleth map

Chapter- 4 Spatial Information Technology

Introduction to GIS; Advantages of GIS, Components of GIS, Spatial data formats, Sequence of GIS activities; Spatial data input, Entering attribute data, Data Linkages and matching, Spatial analysis: Overlay Analysis Operation and Buffer Operation

Map Work

Book: Fundamentals of Human Geography
(Map work on identification of features based on units I to III on the outline physical/political map of the World)

Chapter	**Map item (Map present on official website of Govt. of India should be used)**
Chapter 1-Human Geography	Nil
Chapter 2 The World Population Density Distribution and Growth	Nil
Chapter 3 Human Development	Nil
Chapter 4 Primary Activities	Areas of subsistence gathering Major areas of nomadic herding of the world Major areas of commercial livestock rearing Major areas of extensive commercial grain farming Major areas of mixed farming of the World
Chapter 5-Secondary Activities	Nil
Chapter 6 Tertiary and Quaternary Activities	Nil

Chapter 7 Transport Communication and Trade	**Terminal Stations of Transcontinental Railways** Trans-Siberian, Trans Canadian, Trans-Australian Railways **<u>Major Sea Ports</u>** **Europe**: North Cape, London, Hamburg **North America:** Vancouver, San Francisco, New Orleans . **South America**: Rio de Janeiro, Cologne, Valparaiso **Africa:** Suez and Cape Town **Asia:** Yokohama, Shanghai, Hong Kong, Aden, Karachi, Kolkata **Australia**: Perth, Sydney, Melbourne **<u>Major Airports:</u>** **Asia**: Tokyo, Beijing, Mumbai, Jeddah, Aden **Africa**: Johannesburg & Nairobi **Europe:** Moscow, London, Paris, Berlin and Rome **North America:** Chicago, New Orleans, Mexico City **South America:** Buenos Aires, Santiago **Australia:** Darwin and Wellington **<u>Inland Waterways</u>** Suez Canal, Panama Canal, Rhine waterways and St. Lawrence Seaways
Chapter 8 International Trade	Nil

Map Work

Book: India People and Economy
(Map work on locating and labelling of features based on outline political/physical map of India.)

Chapter	**Map item (Map present on official website of Govt. of India should be used)**
Chapter 1-Population Distribution Density, Growth and Composition	State with highest population density & state with lowest population density (2011)
Chapter 2-Human Settlement	Nil
Chapter 3-Land Resources and Agriculture	Leading producing states of the following crops: (a) Rice (b) Wheat (c) Cotton (d) Jute (e) Sugarcane (f) Tea and (g) Coffee
Chapter 4-Water Resources	Nil
Chapter 5-Mineral And Energy Resources	**Mines:** ● **Iron-ore mines**: Mayurbhanj, Bailadila, Ratnagiri, Bellary · ● **Manganese mines**: Balaghat, Shimoga

	• **Copper mines**: Hazaribagh, Singhbhum, Khetari • **Bauxite mines**: Katni, Bilaspur and Koraput • **Coal mines:** Jharia, Bokaro, Raniganj, Neyveli • **Oil Refineries**: Mathura, Jamnager, Barauni
Chapter 6-Planning and Sustainable Development in Indian Context	Nil
Chapter 7-Transport and Communication	Nil
Chapter 8-International Trade	• **Major Sea Ports:** Kandla, Mumbai, Marmagao, Kochi, Mangalore, Tuticorin, Chennai, Vishakhapatnam, Paradwip, Haldia • **International Airports:** Ahmedabad, Mumbai, Bengaluru, Chennai, Kolkata, Guwahati, Delhi, Amritsar, Thiruvananthapuram & Hyderabad.
Chapter 9- Geographical Perspective on selected issues and problems	Nil

Note: The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. This reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

Book: Fundamentals of Human Geography

1. Population Composition-

- Sex Composition
- Age Structure
- Age Sex Pyramid
- Rural Urban Composition
- Literacy
- Occupation Structure

2. Human Settlements

- Classification of Settlements
- Types and Patterns of Rural Settlement
- Problems of Rural Settlement
- Urban Settlement
- Classification of Urban Settlement (On the basis of population, Occupational Structure and Administrative Set up)
- Problems of Urban Settlement

Book- India People and Economy

1.Migration-

- Types
- Causes
- Consequences

Guidelines for External Assessment/ Geography Practical

- A practical file must be prepared by students covering all the topics prescribed in the practical syllabus.
- The file should be completely handwritten with a cover page, index page and acknowledgment.
- All statistical diagrams and maps should be drawn neatly with appropriate headings, scale, index etc. Data to draw statistical diagrams can be taken from the NCERT textbook or Census.
- The practical file will be assessed both by the internal and external examiners at the time of CBSE practical examinations.
- A written exam of 25 marks will be conducted based on the above given practical syllabus on the day of the practical examination.
- Viva will be conducted based on **practical syllabus** only.
    - ❖ Written Exam - 25 Marks
    - ❖ Practical file- 02 Marks
    - ❖ Viva- 03 Marks

CLASS XII

NCERT Prescribed Textbook

1. **Fundamentals of Human Geography**
2. **India- People and Economy**
3. **Practical work in Geography- Part II**

Links for NCERT textbooks:

1. **https://ncert.nic.in/textbook.php?legy1=0-8**
2. **https://ncert.nic.in/textbook.php?legy2=0-9**
3. **https://ncert.nic.in/textbook.php?legy3=0-**

Note:

1. The above textbooks are also available in Hindi medium.
2. Kindly refer to the latest editions of all NCERT Textbook.

QUESTION PAPER DESIGN GEOGRAPHY CLASSES XI-XII

S No.	Domains	%
1	**Remembering and Understanding** Recalling facts, terms, basic concepts, data, and information. Demonstrate understanding of facts and ideas by organizing, comparing, interpreting, giving descriptions, and stating main ideas.	**41**
2	**Application** Use a concept in a new situation or unprompted use of abstraction by applying acquired knowledge, facts, techniques and rules.	**37**
3	**Analysing, Evaluating and Creating** Examine and break information into parts and determine how the parts relate to one another and/or to an overall structure or purpose by identifying motives or causes so that its organizational structure may be understood. Distinguish between facts and inferences. Make inferences and find evidence to support generalisations. Synthesis: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure. Create: Put elements together to form a new coherent or functional whole; reorganise elements into a new pattern or structure.	**22**

CHEMISTRY
SUBJECT CODE: 043
CLASSES XI-XII (2026-27)

Rationale

The second phase of Secondary stage is the most crucial stage of school education because at this juncture specialised discipline based, content oriented courses are introduced. Students reach this stage after 10 years of general education and opt for Chemistry with a purpose of pursuing their career in basic sciences or professional courses like medicine, engineering, technology and to study courses in applied areas of science and technology at tertiary level. Therefore, there is a need to provide the learners with sufficient conceptual background of Chemistry, which will make them competent to meet the challenges of academic and professional courses after this stage.

The new and updated curriculum is based on a disciplinary approach with rigour and depth ensuring that the syllabus is not heavy and at the same time it is comparable to that at the international level. The pedagogy of Chemistry has undergone tremendous changes in recent times. To keep pace with the developments in Chemistry, many new areas like green chemistry, material science, biomolecules, and industrial chemistry deserve to be an integral part of the chemistry syllabus at this stage. In addition, the nomenclature of elements and compounds; symbols, and units of physical quantities, recommended by scientific bodies like IUPAC and CGPM also need to be incorporated in the updated syllabus. The proposed syllabus takes due care to address these issues.

Objectives

The curriculum of Chemistry at the second phase of Secondary stage has been designed to:

- equip the learners with tools to understand the working of Chemistry rather than mere facts of it;
- develop the necessary conceptual foundations of chemistry and ability to apply them to real life situations;
- enable the learners to represent chemical phenomena at macroscopic, molecular, and symbolic levels;
- make the learners identify patterns and form connections that underlie various chemical phenomena;
- prepare the learners to contribute to frontier research areas related to climate change, environmental issues, materials science, biology and medicine etc.:
- inculcate problem solving skills in the learners and integrate life skills and values in the context of chemistry; and
- apprise learners of the interface of chemistry with other disciplines of science such as physics, biology, geology, engineering etc.

COURSE STRUCTURE

CLASS XI

THEORY

Time: 3 Hours **Total Marks: 70**

S. No	UNIT	Marks
1	Some Basic Concepts of Chemistry	7
2	Structure of Atom	9
3	Classification of Elements and Periodicity in Properties	6
4	Chemical Bonding and Molecular Structure	7
5	Chemical Thermodynamics	9
6	Equilibrium	7
7	Redox Reactions	4
8	Organic Chemistry: Some basic Principles and Techniques	11
9	Hydrocarbons	10
	TOTAL	**70**

Unit 1: Some Basic Concepts of Chemistry

Importance of Chemistry, Nature of Matter, Properties of Matter and their Measurement, Uncertainty in Measurement, Laws of Chemical Combination, Dalton's Atomic Theory, Atomic and Molecular Masses, Mole Concept and Molar Masses, Percentage Composition, Stoichiometry and Stoichiometric Calculations.

Unit 2: Structure of Atom

Discovery of Sub-atomic Particles, Atomic Models, Developments Leading to the Bohr's Model of Atom, Bohr's Model for Hydrogen Atom, Towards Quantum Mechanical Model of the Atom, Quantum Mechanical Model of Atom.

Unit 3: Classification of Elements and Periodicity in Properties

Why we Need to Classify Elements? Genesis of Periodic Classification, Modern Periodic Law and the Present Form of Periodic Table, Nomenclature of Elements with Atomic Number > 100, Electronic Configuration of Elements and the Periodic Table, Electronic Configuration of Elements and Types of Elements: s-, p-, d-, f- Blocks, Periodic Trends in Properties of Elements.

Unit 4: Chemical Bonding and Molecular Structure

Kossel-Lewis Approach to Chemical Bonding, Ionic or Electrovalent Bond, Bond Parameters, The Valence Shell Electron Pair Repulsion (VSEPR) Theory, Valence Bond Theory, Hybridisation, Molecular Orbital Theory, Bonding in Some Homonuclear Diatomic Molecules, Hydrogen Bonding.

Unit 5: Thermodynamics
Thermodynamic Terms, Applications, Measurement of ΔU and ΔH: Calorimetry, Enthalpy Change, and ΔH of a Reaction – Reaction Enthalpy, Enthalpies for Different Types of Reactions, Spontaneity, Gibbs Energy Change and Equilibrium.

Unit 6: Equilibrium
Equilibrium in Physical Processes, Equilibrium in Chemical Processes – Dynamic Equilibrium, Law of Chemical Equilibrium and Equilibrium Constant, Homogeneous Equilibria, Heterogeneous Equilibria, Applications of Equilibrium Constants, Relationship between Equilibrium Constant K, Reaction Quotient Q and Gibbs Energy G, Factors Affecting Equilibria, Ionic Equilibrium in Solution, Acids, Bases and Salts, Ionization of Acids and Bases, Buffer Solutions, Solubility Equilibria of Sparingly Soluble Salts.

Unit 7: Redox Reactions
Classical Idea of Redox Reactions – Oxidation and Reduction Reactions, Redox Reactions in Terms of Electron Transfer Reactions, Oxidation Number, Redox Reactions and Electrode Processes.

Unit 8: Organic Chemistry – Some Basic Principles and Techniques
General Introduction, Tetravalence of Carbon: Shapes of Organic Compounds, Structural Representations of Organic Compounds, Classification of Organic Compounds, Nomenclature of Organic Compounds, Isomerism, Fundamental Concepts in Organic Reaction Mechanism, Methods of Purification of Organic Compounds, Qualitative Analysis of Organic Compounds, Quantitative Analysis

Unit 9: Hydrocarbons
Classification, Alkanes, Alkenes, Alkynes, Aromatic Hydrocarbon, Carcinogenic and Toxicity.

Note: The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. This reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

1. **s & p Block Elements**
   Electronic configuration, atomic & Ionic radii, Ionization Enthalpy, Hydration Enthalpy and general trends in physical and chemical properties of s and p block elements across the periods and down the groups; unique behavior of the first element in each group.
2. **The Gaseous State**
   Qualitative treatment of Gas laws, Ideal gas equation and deviations from it.

PRACTICAL

Evaluation Scheme for Examination	Marks
Volumetric Analysis	08
Salt Analysis	08
Content Based Experiment	06
Project Work	04
Class record and viva	04
Total	**30**

PRACTICAL SYLLABUS

Micro-chemical methods are available for several of the practical experiments, wherever possible such techniques should be used.

A. Basic Laboratory Techniques

1. Cutting glass tube and glass rod
2. Bending a glass tube
3. Drawing out a glass jet
4. Boring a cork

B. Characterization and Purification of Chemical Substances

1. Determination of melting point of an organic compound.
2. Determination of boiling point of an organic compound.
3. Crystallization of impure sample of any one of the following: Alum, Copper Sulphate, Benzoic Acid.

C. Experiments based on pH

1. Any one of the following experiments:
   - Determination of pH of some solutions obtained from fruit juices, solution of known and varied concentrations of acids, bases and salts using pH paper or universal indicator.
   - Comparing the pH of solutions of strong and weak acids of same concentration.
   - Study the pH change in the titration of a strong base using a universal indicator.
2. Study the pH change by common-ion in case of weak acids and weak bases.

D. Chemical Equilibrium

Any one of the following experiments:

- Study the shift in equilibrium between ferric ions and thiocyanate ions by increasing/decreasing the concentration of either of the ions.
- Study the shift in equilibrium between $[Co(H_2O)_6]^{2+}$ and chloride ions by changing the concentration of either of the ions.

E. Quantitative Estimation

1. Using a mechanical balance/electronic balance.
2. Preparation of standard solution of Oxalic acid.
3. Determination of strength of a given solution of Sodium hydroxide by titrating it against standard solution of Oxalic acid.
4. Preparation of standard solution of Sodium carbonate.
5. Determination of strength of a given solution of hydrochloric acid by titrating it against standard Sodium Carbonate solution.

F. Qualitative Analysis

1. Determination of one anion and one cation in a given salt

Cations: Pb^{2+}, Cu^{2+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Ni^{2+}, Zn^{2+}, Co^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+}, NH_4^+

Anions: CO_3^{2-}, S^{2-}, SO_3^{2-}, NO_3^-, NO_2^-, Cl^-, Br^-, I^-, SO_4^{2-}, PO_4^{3-}, CH_3COO^-

(Note: Insoluble salts excluded)

2. Detection of -Nitrogen, Sulphur, Chlorine in organic compounds.

PROJECTS

Scientific investigations involving laboratory testing and collecting information from other sources.

A few suggested Projects

a) Checking the bacterial contamination in drinking water by testing sulphide ion

b) Study of the methods of purification of water

c) Testing the hardness, presence of Iron, Fluoride, Chloride, etc., depending upon the regional variation in drinking water and study of causes of presence of these ions above permissible limit (if any).

d) Investigation of the foaming capacity of different washing soaps and the effect of addition of Sodium carbonate on it

e) Study the acidity of different samples of tea leaves.

f) Determination of the rate of evaporation of different liquids

g) Study the effect of acids and bases on the tensile strength of fibers.

h) Study of acidity of fruit and vegetable juices.

Note: *Any other investigatory project, which involves about 10 periods of work, can be chosen with the approval of the teacher.*

Practical Examination for Visually Challenged Students Class XI

Note: *Same Evaluation scheme and general guidelines for visually challenged students as given for Class XII may be followed.*

List of apparatus for identification for assessment in practicals (All experiments)

Beaker, tripod stand, wire gauze, glass rod, funnel, filter paper, Bunsen burner, test tube, test tube stands, dropper, test tube holder, ignition tube, china dish, tongs, standard flask, pipette, burette, conical flask, clamp stand, dropper, wash bottle

- Odor detection in qualitative analysis.
- Procedure/Setup of the apparatus.

List of Experiments

A. Characterization and Purification of Chemical Substances

Crystallization of an impure sample of any one of the following:
copper sulphate, benzoic acid.

B. Experiments based on pH

1. Determination of pH of some solutions obtained from fruit juices, solutions of known and varied concentrations of acids, bases and salts using pH paper.
2. Comparing the pH of solutions of strong and weak acids of same concentration.

C. Chemical Equilibrium

1. Study the shift in equilibrium between ferric ions and thiocyanate ions by increasing/decreasing the concentration of either ions.
2. Study the shift in equilibrium between $[Co(H_2O)_6]^{2+}$ and chloride ions by changing the concentration of either of the ions.

D. Quantitative estimation

1. Preparation of standard solution of oxalic acid.
2. Determination of molarity of a given solution of sodium hydroxide by titrating it against standard solution of oxalic acid.

E. Qualitative Analysis

1. Determination of one anion and one cation in a given salt

   Cations - $\boldsymbol{NH_4^+}$

   Anions: $\boldsymbol{CO_3^{2-}}$**,**$\boldsymbol{S^{2-}}$ **,** $\boldsymbol{SO_3^{2-}}$**, , ** $\boldsymbol{Cl^-}$**,** $\boldsymbol{CH_3COO^-}$

   (Note: insoluble salts excluded)
2. Detection of Nitrogen in the given organic compound.
3. Detection of Halogen in the given organic compound.

Note: *The above practical may be carried out in an experiential manner rather than recording observations.*

Prescribed Books:

1. Chemistry Part – I, Class-XI, Published by NCERT.
2. Chemistry Part – II, Class-XI, Published by NCERT.
3. Manual of Microscale Chemistry laboratory kit, Published by NCERT

Links for NCERT textbooks:

1. **https://ncert.nic.in/textbook.php?kech1=0-6**
2. **https://ncert.nic.in/textbook.php?kech2=0-3**
3. **https://ncert.nic.in/division/dek/pdf/Manual_01.pdf**

COURSE STRUCTURE
CLASS XII
THEORY

Time: 3 Hours **Total Marks: 70**

S. No.	Title	Marks
1	Solutions	7
2	Electrochemistry	9
3	Chemical Kinetics	7
4	d -and f -Block Elements	7
5	Coordination Compounds	7
6	Haloalkanes and Haloarenes	6
7	Alcohols, Phenols and Ethers	6
8	Aldehydes, Ketones and Carboxylic Acids	8
9	Amines	6
10	Biomolecules	7
	Total	**70**

Unit 1: Solutions
Types of Solutions, Expression of Concentration of Solutions, Solubility, Vapour Pressure of Liquid Solutions, Ideal and Non –Ideal Solutions, Colligative Properties and Determination of Molar Mass, Abnormal Molecular Masses.

Unit 2: Electrochemistry
Electrochemical Cells, Galvanic Cells, Nernst Equation, Conductance of Electrolytic solutions, Electrolytic Cells and Electrolysis, Batteries, Fuel Cells, Corrosion.

Unit 3: Chemical Kinetics
Rate of a Chemical reaction, factors influencing rate of reaction, integrated rate equations, Temperature Dependence of the rate of a reaction, Collision theory of Chemical Reactions

Unit 4: d and f Block Elements
Position in the Periodic Table, Electronic configuration of the d-Block Elements, General properties of the Transition Elements (d-Block), Some Important Compounds of Transition Elements, The Lanthanoids, The Actinoids, Some Applications of d- and f- Block Elements.

Unit 5: Coordination Compounds
Werner's Theory of Coordination Compound, Definition of Some important terms pertaining to Coordination Compounds, Nomenclature of Coordination Compounds. Isomerism in Coordination Compounds, Bonding in coordination compounds, Bonding in Metal Carbonyls, Importance and Applications of Coordination Compounds.

Unit 6: Haloalkanes and Haloarenes

Classification, Nomenclature, Nature of C–X bond, Methods of Preparation of Haloalkanes, Preparation of Haloarenes, Physical Properties, Chemical Reactions, Polyhalogen Compounds.

Unit 7: Alcohols, Phenols and Ethers

Classification, Nomenclature, Structures of Functional Groups, Alcohols and Phenols, Some commercially Important Alcohols, Ethers.

Unit 8: Aldehydes, Ketones and Carboxylic Acids

Nomenclature and Structure of Carbonyl Group, Preparation of Aldehydes and Ketones, Physical Properties and Chemical Reactions, Uses of Aldehydes and Ketones

Nomenclature Structure of Carboxyl Group, Methods of Preparation of Carboxylic Acids, Physical Properties and Chemical Reactions, Uses of Carboxylic Acids.

Unit 9: Amines

Structure of Amines, Classification, Nomenclature, Preparation of Amines, Physical Properties, Chemical Reactions, Methods of Preparation of Diazonium Salts, Physical Propeties, Chemical Reactions, Chemical Reactions Importance of Diazonium Salts in Synthesis of Aromatic Compounds.

Unit 10: Biomolecules

Carbohydrates. Proteins, Enzymes, Vitamins Nucleic Acids, Hormones

Note: The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. This reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

1. **Surface Chemistry -** Adsorption - physisorption and chemisorption, factors affecting adsorption of gases on solids, colloidal state distinction between true solutions, colloids and suspension; lyophilic, lyophobic properties of colloids; coagulation, emulsion - types of emulsions.
2. **General Principles and Processes of Isolation of Elements -** Principles and methods of extraction - concentration, oxidation, reduction - electrolytic method and refining
3. **Polymers –** Polymerisation, Homopolymers and copolymer with few examples
4. **Chemistry in Everyday life -** Chemicals in medicines - analgesics, tranquilizers antiseptics, disinfectants, antimicrobials, antifertility drugs, antibiotics, antacids, antihistamines. Chemicals in food - preservatives, artificial sweetening agents, antioxidants.

PRACTICAL

Evaluation Scheme for Examination	Marks
Volumetric Analysis	08
Salt Analysis	08
Content Based Experiment	06
Project Work	04
Class record and viva	04
Total	**30**

PRACTICAL SYLLABUS

Micro-chemical methods are available for several of the practical experiments, wherever possible such techniques should be used.

A. Surface Chemistry

1. Preparation of one lyophilic and one lyophobic sol

   Lyophilic sol - starch, egg albumin and gum

   Lyophobic sol – aluminum hydroxide, ferric hydroxide, arsenous sulphide.

2. Dialysis of sol-prepared in (a) above.
3. Study of the role of emulsifying agents in stabilizing the emulsion of different oils.

B. Chemical Kinetics

1. Effect of concentration and temperature on the rate of reaction between Sodium Thiosulphate and Hydrochloric acid.
2. Study of reaction rates of any one of the following:
   - Reaction of Iodide ion with Hydrogen Peroxide at room temperature using different concentration of Iodide ions.
   - Reaction between Potassium Iodate, (KIO_3) and Sodium Sulphate: (Na_2SO_3) using starch solution as indicator (clock reaction).

C. Thermochemistry

Any one of the following experiments

- Enthalpy of dissolution of Copper Sulphate or Potassium Nitrate.
- Enthalpy of neutralization of strong acid (HCI) and strong base (NaOH).
- Determination of enthalpy change during interaction (Hydrogen bond formation) between Acetone and Chloroform.

D. Electrochemistry

Variation of cell potential in $Zn/Zn^{2+}||\ Cu^{2+}/Cu$ with change in concentration of electrolytes ($CuSO_4$ or $ZnSO_4$) at room temperature.

E. Chromatography

1. Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of Rf values.
2. Separation of constituents present in an inorganic mixture containing two cations only (constituents having large difference in Rf values to be provided).

F. Preparation of Inorganic Compounds

1. Preparation of double salt of Ferrous Ammonium Sulphate or Potash Alum.
2. Preparation of Potassium Ferric Oxalate.

G. Preparation of Organic Compounds

Preparation of any one of the following compounds

1. Acetanilide
2. Di –benzal acetone
3. p-Nitroacetanilide
4. Aniline yellow or 2 - Naphthol Aniline dye.

H. Tests for the functional groups present in organic compounds

Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.

I. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs.

J. Determination of concentration/ molarity of KMnO4 solution by titrating it against a standard solution of:

1. Oxalic acid,
2. Ferrous Ammonium Sulphate

(Students will be required to prepare standard solutions by weighing themselves).

K. Qualitative analysis

Determination of one anion and one cation in a given salt

Cations: Pb^{2+},Cu^{2+}, Al^{3+}, Fe^{3+},Mn^{2+}, Ni^{2+} Zn^{2+} Co^{2+} $Ca^{2+}$$Sr^{2+}$ Ba^{2+} Mg^{2+}, NH_4^+

Anions: CO_3^{2-},S^{2-} , SO_3^{2-}, NO_3^-, NO_2^- , Cl^-, Br^-, I^- ,SO_4^{2-}, PO_4^{3-} , CH_3COO^-, $C_2O_4^{2-}$

(Note: Insoluble salts excluded)

PROJECTS

Scientific investigations involving laboratory testing and collecting information from other sources.

A few suggested Projects

a) Study of the presence of oxalate ions in guava fruit at different stages of ripening.

b) Study of quantity of casein present in different samples of milk.

c) Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, etc.

d) Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.)

e) Study of digestion of starch by salivary amylase and effect of pH and temperature on it.

f) Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato juice, carrot juice, etc.

g) Extraction of essential oils present in Saunf (aniseed), Ajwain (carom), Illaichi (cardamom).

h) Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chili powder and pepper.

Note: *Any other investigatory project, which involves about 10 periods of work, can be chosen with the approval of the teacher.*

Practical Examination for Visually Challenged Learners Classes XI and XII

Evaluation Scheme	**Marks**
Identification/Familiarity with the apparatus	5
Written test (based on given/prescribed practical's)	10
Practical Record	5
Viva	10
Total	**30**

General Guidelines

- The practical examination will be of two-hour duration.
- A separate list of ten experiments is included here.
- The written examination in practicals for these students will be conducted at the time of practical examination of all other students.
- The written test will be of 30 minutes' duration.
- The question paper given to the students should be legibly typed. It should contain a total of 15 practical skill based very short answer type questions. A student would be required to answer any 10 questions.
- A writer may be allowed to such students as per CBSE examination rules.
- All questions included in the question papers should be related to the listed practicals
- Every question should require about two minutes to be answered.
- These students are also required to maintain a practical file. A student is expected to record at least five of the listed experiments as per the specific instructions for each subject. These practicals should be duly checked and signed by the internal examiner.
- The format of writing any experiment in the practical file should include aim, apparatus required, simple theory, procedure, related practical skills, precautions etc.
- Questions may be generated jointly by the external/internal examiners and used for assessment.
- The viva questions may include questions based on basic theory/principle/concept, apparatus/materials/ chemicals required, procedure, precautions, sources of error etc.

List of apparatus for identification/familiarity for assessment in practical (All experiments)

Beaker, glass rod, tripod stand, wire gauze, Bunsen burner, Whatman filter paper, gas jar, capillary tube, pestle and mortar, test tubes, tongs, test tube holder, test tube stand, burette, pipette, conical flask, standard flask, clamp stand, funnel, filter paper.

Hands-on Assessment

- Identification/familiarity with the apparatus
- Odour detection in qualitative analysis

List of Experiments

The experiments have been divided into two sections: Section A and Section B. The experiments mentioned in Section B are mandatory.

SECTION A

A. Surface Chemistry

1. Preparation of one lyophilic and one lyophobic sol
   i. Lyophilic sol - starch, egg albumin and gum
   ii. Lyophobic sol – Ferric hydroxide

B. Chromatography

Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of Rf values (distance values may be provided).

C. Tests for the functional groups present in organic compounds

1. Alcoholic and Carboxylic groups
2. Aldehyde and Kenotic groups

D. Characteristic tests of carbohydrates and proteins in the given foodstuffs.

E. Preparation of Inorganic Compounds- Potash Alum

SECTION B (Mandatory)

F. Quantitative analysis

1. (a) Preparation of a given volume of the standard solution of Oxalic acid.

   (b) Determination of molarity of $KMnO_4$ solution by titrating it against a standard solution of Oxalic acid.
2. The above exercise [F 1 (a) and (b)] to be conducted using Ferrous ammonium sulphate (Mohr's salt)

G. Qualitative Analysis

Determination of one anion and one cation in a given salt

Cation - $\boldsymbol{NH_4^+}$

Anions: $\boldsymbol{CO_3^{2-}}$**,** $\boldsymbol{S^{2-}}$ **,** $\boldsymbol{SO_3^{2-}}$**,** **,** $\boldsymbol{Cl^-}$**,** $\boldsymbol{CH_3COO^-}$

(Note: insoluble salts excluded)

Note: ***The above practical may be carried out in an experiential manner rather than recording observations.***

Prescribed Books:

1. Chemistry Part – I, Class-XII, Published by NCERT.
2. Chemistry Part – II, Class-XII, Published by NCERT.
3. Manual of Microscale Chemistry Laboratory Kit, Published by NCERT.

Links for NCERT textbooks:

1. **https://ncert.nic.in/textbook.php?lech1=0-5**
2. **https://ncert.nic.in/textbook.php?lech2=0-5**
3. **https://ncert.nic.in/division/dek/pdf/Manual_01.pdf**

QUESTION PAPER DESIGN CLASSES XI & XII

S. No	Domains	Total Marks	%
1	**Remembering and Understanding:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas.	28	40
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	21	30
3	**Analysing, Evaluating and Creating:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	21	30

1. No chapter wise weightage is provided, however, care to be taken to cover all the chapters.
2. Suitable internal variations may be made for generating various templates.
3. There will be no overall choice in the question paper.
4. However, 33% internal choices will be given in all the sections.

BIOLOGY

Subject Code – 044

Classes XI - XII (2026–27)

The present curriculum provides the students with updated concepts along with an extended exposure to contemporary areas of the subject. The curriculum also aims at emphasizing the underlying principles that are common to animals, plants and microorganisms as well as highlighting the relationship of Biology with other areas of knowledge. The format allows a simple, clear, sequential flow of concepts. It links the discoveries and innovations in biology to everyday life such as environment, industry, health and agriculture. The Biology curriculum is expected to enable the students to:

- develop capacities for observation, experimentation, documentation, and familiarity with quantitative reasoning and multi-disciplinary approaches.
- engender sensitivity towards biological issues (environment, health) in their surroundings and be aware of how citizens can contribute to their local communities and to science.
- be aware of bioethical concerns that arise in biology today.
- understand the integration of different fields of biology and highlight the interconnections between these fields.
- be exposed to diverse careers in the life sciences.

This curriculum of Biology will help in achieving the following curricular goals and competencies delineated in the National Curriculum Framework for School Education 2023:

CG-3 Explores the structure and function of the living world at the cellular level	C-3.1 Explains the role of cellular components (nucleus, mitochondria, endoplasmic reticulum, vacuoles, chloroplast, cell wall), including the semi permeability of cell membrane in making cell the structural basis of living organisms and functional basis of life processes C-3.2 Analyses similarities and differences in the life processes involved in nutrition (photosynthesis in plants; absorption of nutrients in fungi; digestion in animals), transport (transport of water in plants; circulation in animals), exchange of materials (respiration and excretion), and reproduction C-3.3 Describes mechanisms of heredity (in terms of DNA, genes, chromosomes) and variation (as changes in the sequence of DNA)
CG-4 Explores interconnectedness between organisms and their	C-4.1 Applies the knowledge of cellular diversity in organisms along with the ecological role organisms play (autotrophic/ heterotrophic nutrition) to classify them into five-kingdoms

environment	C-4.2 Illustrates different levels of organisations of living organisms (from molecules to organisms) C-4.3 Analyses different levels of biological organisation from organisms to ecosystems and biomes along with interactions that take place at each level C-4.4 Analyses patterns of inheritance of traits in terms of Mendel's laws and its consequences at a population level (using models and/or simulations) C-4.5 Analyses evidences of biological evolution demonstrating the consequences of the process of natural selection in terms of changes — in allele frequency in population, structure, and function of organisms
CG-5 Draws linkages between scientific knowledge and knowledge across other curricular areas	C-5.3 Applies scientific principles to explain phenomena in other subjects (sound pitch, octave, and amplitude in music; use of muscles in dance form and sports)
CG-6 Understands and appreciates the contribution of India through history and the present times to the overall field of Science, including the disciplines that constitute it	C-6.1 Knows and explains the significant contributions of India to all matters (concepts, explanations, methods) that are studied within the curriculum in an integrated manner
CG-7 Develops awareness of the most current discoveries, ideas, and frontiers in all areas of scientific knowledge in order to appreciate that Science is ever evolving, and that there are still many unanswered questions	C-7.1 States concepts that represent the most current understanding of the matter being studied — ranging from mere familiarity to conceptual understanding of the matter as appropriate to the developmental stage of the students C-7.2 States questions related to matters in the curriculum for which current scientific understanding is well-recognised to be inadequate
CG-8 Explores the nature of Science by doing Science	C-8.1 Develops accurate and appropriate models (including geometric, mathematical, graphical) to represent real-life events and phenomena using scientific principles and use these models to manipulate variables and predict results C-8.2 Designs and implements a plan for scientific inquiry (formulates hypotheses, makes predictions, identifies variables, accurately uses scientific instruments, represents data — primary and secondary — in multiple modes, draws inferences based on data and understanding of scientific concepts, theories, laws, and principles, communicates findings using scientific terminology)

It is expected that the students would get an exposure to various branches of Biology in the curriculum in a more contextual and systematic manner as they study its various units. (NCFSE-2023)

Attainment of the competencies shall be done through transaction of the curriculum using appropriate pedagogy; these shall be assessed through an integrated evaluation scheme.

COURSE STRUCTURE
CLASS XI (2026-27)
(THEORY)

Time: 03 Hours **Max. Marks: 70**

Unit	Title	Marks
I	Diversity of Living Organisms	15
II	Structural Organization in Plants and Animals	10
III	Cell: Structure and Function	15
IV	Plant Physiology	12
V	Human Physiology	18
	Total	**70**

Unit-I Diversity of Living Organisms

Chapter-1: The Living World

Biodiversity; Need for classification; three domains of life; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature

Chapter-2: Biological Classification

Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids.

Chapter-3: Plant Kingdom

Classification of plants into major groups; Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae and Angiosperms.

Chapter-4: Animal Kingdom

Salient features and classification of animals, non-chordates up to phyla level and chordates upto class level (salient features and at a few examples of each category).

(No live animals or specimen should be displayed.)

Unit-II Structural Organization in Plants and Animals

Chapter-5: Morphology of Flowering Plants

Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae

Chapter-6: Anatomy of Flowering Plants

Anatomy and functions of tissue systems in dicots and monocots.

Chapter-7: Structural Organisation in Animals

Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog.

Unit-III Cell: Structure and Function

Chapter-8: Cell-The Unit of Life

Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus.

Chapter-9: Biomolecules

Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, and nucleic acids; Enzyme - types, properties, enzyme action. (Topics excluded: Nature of Bond Linking Monomers in a Polymer, Dynamic State of Body Constituents Concept of Metabolism, Metabolic Basis of Living, The Living State)

Chapter-10: Cell Cycle and Cell Division

Cell cycle, mitosis, meiosis and their significance

Unit-IV Plant Physiology

Chapter-11: Photosynthesis in Higher Plants

Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis.

Chapter-12: Respiration in Plants

Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient.

Chapter-13: Plant - Growth and Development

Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; plant growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA.

Unit-V Human Physiology

Chapter-14: Breathing and Exchange of Gases

Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders.

Chapter-15: Body Fluids and Circulation

Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure.

Chapter-16: Excretory Products and their Elimination

Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant.

Chapter-17: Locomotion and Movement

Types of movement - ciliary, flagellar, muscular; skeletal muscle, contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.

Chapter-18: Neural Control and Coordination

Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse

Chapter- 19: Chemical Coordination and Integration

Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goitre, diabetes, Addison's disease.

The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. The reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

Digestion and Absorption (Please Refer to CBSE Reading Material)

Alimentary canal and digestive glands, role of digestive enzymes and gastrointestinal hormones; Peristalsis, digestion, absorption and assimilation of proteins, carbohydrates and fats; calorific values of proteins, carbohydrates and fats; egestion; nutritional and digestive disorders - PEM, indigestion, constipation, vomiting, jaundice, diarrhea.

PRACTICALS

Time: 03 Hours **Max. Marks: 30**

Evaluation Scheme		Marks
One Major Experiment Part A (Experiment No- 1,3,7,8)		5 Marks
One Minor Experiment Part A (Experiment No- 6,9,10,11,12,13)		4 Marks
Slide Preparation Part A (Experiment No- 2,4,5)		5 Marks
Spotting Part B		7 Marks
Practical Record + Viva Voce	(Credit to the student's work over the academic session may be given)	4 Marks
Project Record + Viva Voce		5 Marks
Total		30 Marks

A: List of Experiments

1. Study and describe locally available common flowering plants, from family Solanaceae (Poaceae, Asteraceae or Brassicaceae can be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound).
2. Preparation and study of T.S. of dicot and monocot roots and stems (primary).
3. Study of osmosis by potato osmometer.
4. Study of plasmolysis in epidermal peels (e.g. Rhoeo/lily leaves or flashy scale leaves of onion bulb).
5. Study of distribution of stomata on the upper and lower surfaces of leaves.
6. Comparative study of the rates of transpiration in the upper and lower surfaces of

leaves.

7. Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials.
8. Separation of plant pigments through paper chromatography.
9. Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.
10. Test for presence of urea in urine.
11. Test for presence of sugar in urine.
12. Test for presence of albumin in urine.
13. Test for presence of bile salts in urine.

B. Study and Observe the following (spotting):

1. Parts of a compound microscope.
2. Specimens/slides/models and identification with reasons - Bacteria, *Oscillatoria, Spirogyra, Rhizopus*, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant and one lichen.
3. Virtual specimens/slides/models and identifying features of - *Amoeba, Hydra,* liver fluke, *Ascaris*, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.
4. Mitosis in onion root tip cells and animal's cells (grasshopper) from permanent slides.
5. Types of inflorescence (cymose and racemose).
6. Human skeleton and different types of joints with the help of virtual images/models only.

Practical Examination for Visually Impaired Students Class XI

Note: The 'Evaluation schemes' and 'General Guidelines' for visually impaired students as given for Class XII may be followed.

A. Items for Identification/Familiarity with the apparatus /equipment /animal and plant material / chemicals for assessment in practicals (All experiments)

B. Equipment - compound microscope, test tube, petri dish, chromatography paper, chromatography chamber, beaker, scalpel

Chemical – alcohol

Models – Model of Human skeleton to show – Ball and socket joints of girdles and limbs, Rib cage, Honeycomb, Mollusc shell, Pigeon and Star fish, cockroach

Specimen/Fresh Material – mushroom, succulents such as *Aloe vera*/ kalenchoe, raisins, potatoes, seeds of monocot and dicot- maize and gram or any other plant, plants of Solanaceae - Brinjal, Petunia, any other

C. List of Practicals

1. Study locally available common flowering plants of the family – Solanaceae and identify type of stem (Herbaceous or Woody), type of leaves (Compound or Simple).
2. Study the parts of a compound microscope- eye piece and objective lens, mirror, stage, coarse and fine adjustment knobs.
3. Differentiate between monocot and dicot plants on the basis of venation patterns.
4. Study the following parts of human skeleton (Model): Ball and socket joints of thigh and shoulder
5. Rib cage
6. Study honeybee/butterfly, snail/sheik snail through shell, Starfish, Pigeon (through models).
7. Identify the given specimen of a fungus – mushroom, gymnosperm-pine cone.
8. Identify and relate the experimental set up with the aim of experiment: For Potato Osmometer/endosmosis in raisins.

Note: The above practicals may be carried out in an experiential manner rather than only recording observations.

Prescribed Books:

1. Biology Class-XI, Published by NCERT
2. Other related books and manuals brought out by NCERT (including multimedia).
3. Biology supplementary Material (Revised). Available on CBSE Website.
4. Reading Material Biology Class XI.

COURSE STRUCTURE

CLASS XII (2026 - 27)

(THEORY)

Time: 03 Hours **Max. Marks: 70**

Unit	Title	Marks
VI	Reproduction	**16**
VII	Genetics and Evolution	**20**
VIII	Biology and Human Welfare	**12**
IX	Biotechnology and its Applications	**12**
X	Ecology and Environment	**10**
	Total	**70**

Unit-VI Reproduction

Chapter-1: Sexual Reproduction in Flowering Plants

Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.

Chapter-2: Human Reproduction

Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).

Chapter-3: Reproductive Health

Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (elementary idea for general awareness).

Unit-VII Genetics and Evolution

Chapter-4: Principles of Inheritance and Variation

Heredity and variation: Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in humans, birds and honey bee; linkage and crossing over; sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans - thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

Chapter-5: Molecular Basis of Inheritance

Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation; gene expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting.

Chapter-6: Evolution

Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution - variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy- Weinberg's principle; adaptive radiation; human evolution.

Unit-VIII: Biology and Human Welfare

Chapter-7: Human Health and Diseases

Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.

Chapter-8: Microbes in Human Welfare

Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use.

Unit-IX Biotechnology and its Applications

Chapter-9: Biotechnology - Principles and Processes

Genetic Engineering (Recombinant DNA Technology).

Chapter-10: Biotechnology and its Applications

Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents.

Unit-X Ecology and Environment

Chapter-11: Organisms and Populations

Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution.

Chapter-12: Ecosystem

Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy.

Chapter-13: Biodiversity and its Conservation

Biodiversity-Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.

The following topics are included in the syllabus but will be assessed only formatively to reinforce understanding without adding to summative assessments. The reduces academic stress while ensuring meaningful learning. Schools can integrate these with existing chapters as they align well. Relevant NCERT textual material is enclosed for reference.

Environmental Issues (available as a part of CBSE Reading Material):

Air pollution and its control, Water pollution and its control, Solid Wastes, Agro-chemicals and their effects, Radioactive wastes, Greenhouse effect and global warming, Ozone depletion in the stratosphere, Degradation by improper resource utilization and maintenance, deforestation.

PRACTICALS

Time allowed: 3 Hours **Max. Marks: 30**

<table>
<tr><th colspan="2">Evaluation Scheme</th><th>Marks</th></tr>
<tr><td>One Major Experiment</td><td>5</td><td>5</td></tr>
<tr><td>One Minor Experiment</td><td>2 & 3</td><td>4</td></tr>
<tr><td>Slide Preparation</td><td>1 & 4</td><td>5</td></tr>
<tr><td colspan="2">Spotting</td><td>7</td></tr>
<tr><td>Practical Record + Viva Voce</td><td rowspan="2">(Credit to the student's work over the academic session may be given)</td><td>4</td></tr>
<tr><td>Investigatory Project and its Project Record + Viva Voce</td><td>5</td></tr>
<tr><td colspan="2">Total</td><td>30</td></tr>
</table>

A. List of Experiments

1. Prepare a temporary mount to observe pollen germination.
2. Study the plant population density by quadrat method.
3. Study the plant population frequency by quadrat method.
4. Prepare a temporary mount of onion root tip to study mitosis.
5. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, banana etc.

B. Study and observe the following (Spotting):

1. Flowers adapted to pollination by different agencies (wind, insects, birds).
2. Pollen germination on stigma through a permanent slide or scanning electron micrograph.
3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
4. Meiosis in onion bud cell or grasshopper testis through permanent slides.
5. T.S. of blastula through permanent slides (Mammalian).
6. Mendelian inheritance using seeds of different colour/sizes of any plant.
7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.
8. Controlled pollination - emasculation, tagging and bagging.
9. Common disease causing organisms like *Ascaris, Entamoeba, Plasmodium*, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.

10. Models specimens showing symbiotic association in lichens, root nodules of leguminous plants, and parasitic mode of nutrition shown by Cuscuta on host.
11. Flash cards / models showing examples of homologous and analogous organs.

Practical Examination for Visually Impaired Students of Classes XI and XII

Evaluation Scheme

Time: 02 Hours **Max. Marks: 30**

Topic	Marks
Identification/Familiarity with the apparatus	5
Written test (Based on given / prescribed practicals)	10
Practical Records	5
Viva	10
Total	**30**

General Guidelines

- The practical examination will be of two-hour duration. A separate list of ten experiments is included here.
- The written examination in practicals for these students will be conducted at the time of practical examination of all other students.
- The written test will be of 30 minutes duration.
- The question paper given to the students should be legibly typed. It should contain a total of 15 practical skill based very short answer type questions. A student would be required to answer any 10 questions.
- A writer may be allowed to such students as per CBSE examination rules.
- All questions included in the question paper should be related to the listed practicals. Every question should require about two minutes to be answered.
- These students are also required to maintain a practical file. A student is expected to record at least five of the listed experiments as per the specific instructions for each subject. These practicals should be duly checked and signed by the internal examiner.
- The format of writing any experiment in the practical file should include aim, apparatus required, simple theory, procedure, related practical skills, precautions etc.

- Questions may be generated jointly by the external/internal examiners and used for assessment.
- The viva questions may include questions based on basic theory / principle / concept, apparatus / materials / chemicals required, procedure, precautions, sources of error etc.

Class XII

A. Items for Identification/ familiarity with the apparatus for assessment in practicals (All experiments) Beaker, flask, petriplates, soil from different sites - sandy, clayey, loamy, small potted plants, aluminium foil, paint brush, test tubes, starch solution, iodine, ice cubes, Bunsen burner/spirit lamp/water bath, large flowers, Maize inflorescence, model of developmental stages highlighting morula and blastula of frog, beads/seeds of different shapes/size/texture *Ascaris*, Cactus/*Opuntia* (model).

B. List of Practicals

1. Study of flowers adapted to pollination by different agencies (wind, insects).
2. Identification of T.S of morula or blastula of frog (Model).
3. Study of Mendelian inheritance pattern using beads/seeds of different sizes/texture.
4. Preparation of pedigree charts of genetic traits such as rolling of tongue, colour blindness.
5. Study of emasculation, tagging and bagging by trying out an exercise on controlled pollination.
6. Identify common disease causing organisms like *Ascaris* (model) and learn some common symptoms of the disease that they cause.
7. Comment upon the morphological adaptations of plants found in xerophytic conditions.

Note: The above practicals may be carried out in an experiential manner rather than recording observations.

Prescribed Books:

1. Biology, Class-XII, Published by NCERT.
2. Other related books and manuals brought out by NCERT (includes multimedia).
3. Biology Supplementary Material (Revised). Available on CBSE website.
4. Reading Material Biology Class XII.

Question Paper Design (Theory)

Class XII (2026 - 27)

Biology (044)

Competencies	Total
Demonstrate Knowledge and Understanding	50 %
Application of Knowledge / Concepts	30 %
Analyse, Evaluate and Create	20 %

Note:

- Typology of questions: VSA including MCQs, Assertion – Reasoning type questions; SA; LA-I; LA-II; Source-based/ Case-based/ Passage-based/ Integrated assessment questions.
- An internal choice of approximately 33% would be provided.

Suggestive verbs for various competencies

- **Demonstrate, Knowledge and Understanding**
  State, name, list, identify, define, suggest, describe, outline, summarize, etc.
- **Application of Knowledge/Concepts**
  Calculate, illustrate, show, adapt, explain, distinguish, etc.
- **Analyze, Evaluate and Create**
  Interpret, analyse, compare, contrast, examine, evaluate, discuss, construct, etc.

COMPUTER SCIENCE
Subject Code - 083
Class XI (2026-27)

1. Learning Outcomes

Students should be able to:

a) develop basic computational thinking
b) explain and use data types
c) appreciate the notion of algorithms
d) develop a basic understanding of computer systems- architecture and operating system
e) explain cyber ethics, cyber safety, and cybercrime
f) understand the value of technology in societies along with consideration of gender and disability issues.

2. Distribution of Marks

Unit No.	Unit Name	Marks
1	Computer Systems and Organisation	10
2	Computational Thinking and Programming -1	45
3	Society, Law, and Ethics	15
	Total	**70**

3. Unit wise Syllabus

Unit 1: Computer Systems and Organisation

- Basic computer organisation: Introduction to Computer System, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (bit, byte, KB, MB, GB, TB, PB)
- Types of software: System software (Operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler, and interpreter), application software
- Operating System(OS): functions of the operating system, OS user interface
- Boolean logic: NOT, AND, OR, NAND, NOR, XOR, truth tables and De Morgan's laws, Logic circuits
- Number System: Binary, Octal, Decimal and Hexadecimal number system;

conversion between number systems
- Encoding Schemes: ASCII, ISCII, and Unicode (UTF8, UTF32)

Unit 2: Computational Thinking and Programming - I

- Introduction to Problem-solving: Steps for Problem-solving (Analyzing the problem, developing an algorithm, coding, testing, and debugging), representation of algorithms using flowchart and pseudocode, decomposition
- Familiarization with the basics of Python programming: Introduction to Python, Features of Python, executing a simple “hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens(keyword, identifier, literal, operator, punctuator), variables, concept of l-value and r-value, use of comments
- Knowledge of data types: Number(integer, floating point,complex), boolean, sequence(string, list, tuple), None, Mapping(dictionary), mutable and immutable data types.
- Operators: arithmetic operators, relational operators, logical operators, assignment operators, augmented assignment operators, identity operators (is, is not), membership operators (in not in)
- Expressions, statement, type conversion, and input/output: precedence of operators, expression, evaluation of an expression, type-conversion (explicit and implicit conversion), accepting data as input from the console and displaying output.
- Errors- syntax errors, logical errors, and run-time errors
- Flow of Control: introduction, use of indentation, sequential flow, conditional and iterative flow
- Conditional statements: if, if-else, if-elif-else, flowcharts, simple programs: e.g.: absolute value, sort 3 numbers and divisibility of a number.
- Iterative Statement: for loop, range(), while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number, etc.
- Strings: introduction, string operations (concatenation, repetition, membership and slicing), traversing a string using loops, built-in functions/methods–len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(),lstrip(), rstrip(), strip(), replace(), join(), partition(), split()
- Lists: introduction, indexing, list operations (concatenation, repetition, membership and slicing), traversing a list using loops, built-in functions/methods–len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list.
- Tuples: introduction, indexing, tuple operations (concatenation, repetition, membership and slicing); built-in functions/methods — len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple; suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear

search on a tuple of numbers, counting the frequency of elements in a tuple.

- Dictionary: introduction, accessing items in a dictionary using keys, mutability of a dictionary (adding a new term, modifying an existing item), traversing a dictionary, built-in functions/methods — len(), dict(), keys(), values(), items(), get(), update(), del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), sorted(); Suggested programs: count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them.
- Introduction to Python modules: Importing module using 'import <module>' and using from statement, importing math module (pi, e, sqrt(), ceil(), floor(), pow(), fabs(), sin(), cos(), tan()); random module (random(), randint(), randrange()), statistics module (mean(), median(), mode()).

Unit 3: Society, Law and Ethics

- Digital Footprints
- Digital Society and Netizen: net etiquettes, communication etiquettes, social media etiquettes
- Data Protection: Intellectual property rights (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source software and licensing (Creative Commons, GPL and Apache)
- Cyber Crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, cyber trolls, cyber bullying
- Cyber safety: safely browsing the web, identity protection, confidentiality
- Malware: viruses, trojans, adware
- E-waste management: proper disposal of used electronic gadgets.
- Information Technology Act (IT Act)
- Technology and society: Gender and disability issues while teaching and using computers

4. Practical

S.No.	Unit Name	Marks (Total=30)
1.	**Lab Test (12 marks)**	
	Python program (60% logic + 20% documentation + 20% code quality)	**12**
2.	**Report File + Viva (10 marks)**	
	Report file: Minimum 20 Python programs	**7**
	Viva voce	**3**
3.	Project (that uses most of the concepts that have been learnt)	**8**

5. Suggested Practical List

Python Programming

- Input a welcome message and display it.
- Input two numbers and display the larger / smaller number.
- Input three numbers and display the largest / smallest number.
- Generate the following patterns using nested loops:

Pattern-1	Pattern-2	Pattern-3
* ** *** **** *****	12345 1234 123 12 1	A AB ABC ABCD ABCDE

- Write a program to input the value of x and n and print the sum of the following series:
  - $1 + x + x^2 + x^3 + x^4 + \cdots x^n$
  - $1 - x + x^2 - x^3 + x^4 - \cdots x^n$
  - $x + \frac{x^2}{2} + \frac{x^3}{3} + \frac{x^4}{4} + \cdots \frac{x^n}{n}$
  - $x + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \cdots \frac{x^n}{n!}$
- Determine whether a number is a perfect number, an Armstrong number or a palindrome.
- Input a number and check if the number is a prime or composite number.
- Display the terms of a Fibonacci series.
- Compute the greatest common divisor and least common multiple of two integers.
- Count and display the number of vowels, consonants, uppercase, lowercase characters in string.
- Input a string and determine whether it is a palindrome or not; convert the case of characters in a string.
- Find the largest/smallest number in a list/tuple
- Input a list of numbers and swap elements at the even location with the elements at the odd location.
- Input a list/tuple of elements, search for a given element in the list/tuple.
- Create a dictionary with the roll number, name and marks of n students in a class and display the names of students who have marks above 75.

6. Suggested Reading Material

- NCERT Textbook for Computer Science (Class XI)
- Support Material on CBSE website

COMPUTER SCIENCE
Subject Code – 083
Class XII (2026-27)

1. Prerequisites

Computer Science- Class XI

2. Learning Outcomes

Student should be able to

a) apply the concept of function.

b) explain and use the concept of file handling.

c) use basic data structure: Stacks

d) explain basics of computer networks.

e) use Database concepts, SQL along with connectivity between Python and SQL.

3. Distribution of Marks:

Unit No.	Unit Name	Marks
1	Computational Thinking and Programming — 2	40
2	Computer Networks	10
3	Database Management	20
	Total	**70**

4. Unit wise Syllabus

Unit 1: Computational Thinking and Programming – 2

- Revision of Python topics covered in Class XI.
- Functions: types of function (built-in functions, functions defined in module, user defined functions), creating user defined function, arguments and parameters, default parameters, positional parameters, function returning value(s), flow of execution, scope of a variable (global scope, local scope)
- Exception Handling: Introduction, handling exceptions using try-except-finally blocks
- Introduction to files, types of files (Text file, Binary file, CSV file), relative and absolute paths

- Text file: opening a text file, text file open modes (r, r+, w, w+, a, a+), closing a text file, opening a file using with clause, writing/appending data to a text file using write() and writelines(), reading from a text file using read(), readline() and readlines(), seek and tell methods, manipulation of data in a text file
- Binary file: basic operations on a binary file: open using file open modes (rb, rb+, wb, wb+, ab, ab+), close a binary file, import pickle module, dump() and load() method, read, write/create, search, append and update operations in a binary file
- CSV file: import csv module, open / close csv file, write into a csv file using writer(),writerow(),writerows() and read from a csv file using reader()
- Data Structure: Stack, operations on stack (push & pop), implementation of stack using list.

Unit 2: Computer Networks

- Evolution of networking: introduction to computer networks, evolution of networking (ARPANET, NSFNET, INTERNET)
- Data communication terminologies: concept of communication, components of data communication (sender,receiver, message, communication media, protocols), measuring capacity of communication media (bandwidth, data transfer rate), IP address, switching techniques (Circuit switching, Packet switching)
- Transmission media: Wired communication media (Twisted pair cable, Co-axial cable, Fiber-optic cable), Wireless media (Radio waves, Micro waves, Infrared waves)
- Network devices (Modem, Ethernet card, RJ45, Repeater, Hub, Switch, Router, Gateway, WIFI card)
- Network topologies and Network types: types of networks (PAN, LAN, MAN, WAN), networking topologies (Bus, Star, Tree)
- Network protocol: HTTP, FTP, PPP, SMTP, TCP/IP, POP3, HTTPS, TELNET, VoIP
- Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting

Unit 3: Database Management

- Database concepts: introduction to database concepts and its need
- Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys (candidate key, primary key, alternate key, foreign key)
- Structured Query Language: introduction, Data Definition Language and Data Manipulation Language, data type (char(n), varchar(n), int, float, date), constraints (not null, unique, primary key), create database, use database, show databases, drop database, show tables, create table, describe table, alter table (add and remove an attribute, add and remove primary key), drop table, insert, delete, select, operators (mathematical, relational and logical), aliasing, distinct clause, where clause, in, between, order by, meaning of null, is null, is not null, like, update command, delete command, aggregate functions (max, min, avg, sum, count), group by, having clause, joins: cartesian product on two tables, equi-join and natural join
- Interface of python with an SQL database: connecting SQL with Python, performing

insert, update, delete queries using cursor, display data by using connect(), cursor(), execute(), commit(), fetchone(), fetchall(), rowcount, creating database connectivity applications, use of %s format specifier or format() to perform queries

5. Practical

S.No	Unit Name	Marks (Total=30)
1	Lab Test: 1. Python program (60% logic + 20% documentation + 20% code quality)	8
	2. SQL queries (4 queries based on one or two tables)	4
2	Report file: • Minimum 15 Python programs. • SQL Queries – Minimum 5 sets using one table / two tables. • Minimum 4 programs based on Python — SQL connectivity	7
3	Project (using concepts learnt in Classes 11 and 12)	8
4	Viva voce	3

6. Suggested Practical List:

Python Programming

- Read a text file line by line and display each word separated by a #.
- Read a text file and display the number of vowels/consonants/uppercase/lowercase characters in the file.
- Remove all the lines that contain the character 'a' in a file and write it to another file.
- Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message.
- Create a binary file with roll number, name and marks. Input a roll number and update the marks.
- Write a random number generator that generates random numbers between 1 and 6 (simulates a dice).
- Write a Python program to implement a stack using list.
- Create a CSV file by entering user-id and password, read and search the password for given userid.

Database Management

- Create a student table and insert data. Implement the following SQL commands on the student table:
    - ALTER table to add new attributes / modify data type / drop attribute
    - UPDATE table to modify data
    - ORDER By to display data in ascending / descending order
    - DELETE to remove tuple(s)
    - GROUP BY and find the min, max, sum, count and average
- Similar exercise may be framed for other cases.
- Integrate SQL with Python by importing suitable module.

7. Suggested Reading Material

- NCERT Textbook for COMPUTER SCIENCE (Class XII)
- Support Materials on the CBSE website.

8. Project

The aim of the class project is to create something that is tangible and useful using Python file handling/ Python-SQL connectivity. This should be done in groups of two to three students and should be started by students at least 6 months before the submission deadline. The aim here is to find a real world problem that is worthwhile to solve.

Students are encouraged to visit local businesses and ask them about the problems that they are facing. For example, if a business is finding it hard to create invoices for filing GST claims, then students can do a project that takes the raw data (list of transactions), groups the transactions by category, accounts for the GST tax rates, and creates invoices in the appropriate format. Students can be extremely creative here. They can use a wide variety of Python libraries to create user friendly applications such as games, software for their school, software for their disabled fellow students, and mobile applications, of course to do some of these projects, some additional learning is required; this should be encouraged. Students should know how to teach themselves.

The students should be sensitized to avoid plagiarism and violations of copyright issues while working on projects. Teachers should take necessary measures for this.

ACCOUNTANCY (Subject Code 055)

Class XI-XII (2026-27)

Rationale

The course in accountancy is introduced at plus two stage of senior second of school education, as the formal commerce education is provided after ten years of schooling. With the fast changing economic scenario, accounting as a source of financial information has carved out a place for itself at the senior secondary stage. Its syllabus content provide students a firm foundation in basic accounting concepts and methodology and also acquaint them with the changes taking place in the preparation and presentation of financial statements in accordance to the applicable accounting standards and the Companies Act 2013.

The course in accounting put emphasis on developing basic understanding about accounting as an information system. The emphasis in Class XI is placed on basic concepts and process of accounting leading to the preparation of accounts for a sole proprietorship firm. The students are also familiarized with basic calculations of Goods and Services Tax (GST) in recording the business transactions. The accounting treatment of GST is confined to the syllabus of class XI.

The increased role of ICT in all walks of life cannot be overemphasized and is becoming an integral part of business operations. The learners of accounting are introduced to Computerized Accounting System at class XI and XII. Computerized Accounting System is a compulsory component which is to be studied by all students of commerce in class XI; whereas in class XII it is offered as an optional subject to Company Accounts and Analysis of Financial Statements. This course is developed to impart skills for designing need based accounting database for maintaining book of accounts.

The complete course of Accountancy at the senior secondary stage introduces the learners to the world of business and emphasize on strengthening the fundamentals of the subject.

Objectives:

1. To familiarize students with new and emerging areas in the preparation and presentation of financial statements.
2. To acquaint students with basic accounting concepts and accounting standards.
3. To develop the skills of designing need based accounting database.
4. To appreciate the role of ICT in business operations.
5. To develop an understanding about recording of business transactions and preparation of financial statements.
6. To enable students with accounting for Not-for-Profit organizations, accounting for Partnership Firms and company accounts.

Accountancy (Subject Code 055)

Class-XI (2026-27)

Theory: 80 Marks **3 Hours**

Project: 20 Marks

Units		**Marks**
Part A: Financial Accounting-1		
	Unit-1: Theoretical Framework	**12**
	Unit-2: Accounting Process	**44**
Part B: Financial Accounting-II		
	Unit-3: Financial Statements of Sole Proprietorship	**24**
Part C: Project Work		**20**

PART A: FINANCIAL ACCOUNTING - I

Unit-1: Theoretical Frame Work

Units/Topics	**Learning Outcomes**
Introduction to Accounting • Accounting- concept, meaning, as a source of information, objectives, advantages and limitations, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business. • Basic Accounting Terms- Entity, Business Transaction, Capital, Drawings. Liabilities (Non Current and Current). Assets (Non Current, Current); Expenditure (Capital and Revenue), Expense, Revenue, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount) **Theory Base of Accounting** • Fundamental accounting assumptions: GAAP: Concept • Basic Accounting Concept : Business Entity, Money Measurement, Going Concern,	**After going through this Unit, the students will be able to:** • describe the meaning, significance, objectives, advantages and limitations of accounting in the modem economic environment with varied types of business and non-business economic entities. • identify / recognise the individual(s) and entities that use accounting information for serving their needs of decision making. • explain the various terms used in accounting and differentiate between different related terms like current and non-current, capital and revenue. • give examples of terms like business transaction, liabilities, assets, expenditure and purchases. • explain that sales/purchases include both cash and credit sales/purchases relating to the accounting year. • differentiate among income, profits and gains.

Accounting Period, Cost Concept, Dual Aspect, Revenue Recognition, Matching, Full Disclosure, Consistency, Conservatism, • Materiality and Objectivity • System of Accounting. Basis of Accounting: cash basis and accrual basis • Accounting Standards: Applicability of Accounting Standards (AS) and Indian Accounting Standards (IndAS) • Goods and Services Tax (GST): Characteristics and Advantages.	• state the meaning of fundamental accounting assumptions and their relevance in accounting. • describe the meaning of accounting assumptions and the situation in which an assumption is applied during the accounting process. • explain the meaning, applicability, objectives, advantages and limitations of accounting standards. • appreciate that various accounting standards developed nationally and globally are in practice for bringing parity in the accounting treatment of different items. • acknowledge the fact that recording of accounting transactions follows double entry system. • explain the bases of recording accounting transaction and to appreciate that accrual basis is a better basis for depicting the correct financial position of an enterprise. • Explain the meaning, advantages and characteristic of GST.

Unit-2: Accounting Process

Units/Topics	**Learning Outcomes**
Recording of Business Transactions • Voucher and Transactions: Source documents and Vouchers, Preparation of Vouchers, Accounting Equation Approach: Meaning and Analysis, Rules of Debit and Credit. • Recording of Transactions: Books of Original Entry- Journal • Special Purpose books: • Cash Book: Simple, cash book with bank column and petty cashbook • Purchases book	**After going through this Unit, the students will be able to:** • explain the concept of accounting equation and appreciate that every transaction affects either both the sides of the equation or a positive effect on one item and a negative effect on another item on the same side of accounting equation. • explain the effect of a transaction (increase or decrease) on the assets, liabilities, capital, revenue and expenses. • appreciate that on the basis of source

• Sales book • Purchases return book • Sales return book • Journal proper ***Note: Including trade discount, freight and cartage expenses for simple GST calculation.*** • Ledger: Format, Posting from journal and subsidiary books, Balancing of accounts **Bank Reconciliation Statement:** • Need and preparation, Bank Reconciliation Statement **Depreciation, Provisions and Reserves** • Depreciation: Meaning, Features, Need, Causes, factors • Other similar terms: Depletion and Amortisation • Methods of Depreciation: i. Straight Line Method (SLM) ii. Written Down Value Method (WDV) ***Note: Excluding change of method*** • Difference between SLM and WDV; Advantages of SLM and WDV • Method of recoding depreciation i. Charging to asset account ii. Creating provision for depreciation/accumulated depreciation account • Treatment of disposal of asset • Provisions, Reserves, Difference Between Provisions and Reserves. • Types of Reserves: i. Revenue reserve ii. Capital reserve iii. General reserve iv. Specific reserve v. Secret Reserve • Difference between capital and revenue reserve **Trial balance and Rectification of Errors**	documents, accounting vouchers are prepared for recording transaction in the books of accounts. • develop the understanding of recording of transactions in journal and the skill of calculating GST. • explain the purpose of maintaining a Cash Book and develop the skill of preparing the format of different types of cash books and the method of recording cash transactions in Cash book. • describe the method of recording transactions other than cash transactions as per their nature in different subsidiary books . • appreciate that at times bank balance as indicated by cash book is different from the bank balance as shown by the pass book / bank statement and to reconcile both the balances, bank reconciliation statement is prepared. • develop understanding of preparing bank reconciliation statement. • appreciate that for ascertaining the position of individual accounts, transactions are posted from subsidiary books and journal proper into the concerned accounts in the ledger and develop the skill of ledger posting. • explain the necessity of providing depreciation and develop the skill of using different methods for computing depreciation. • understand the accounting treatment of providing depreciation directly to the concerned asset account or by creating provision for depreciation account. • appreciate the method of asset disposal through the concerned asset account or by preparing asset disposal account. • appreciate the need for creating reserves and also making provisions for events which may

• Trial balance: objectives, meaning and preparation **(Scope:** *Trial balance with balance method only*) • Errors: classification-errors of omission, commission, principles, and compensating; their effect on Trial Balance. • Detection and rectification of errors; (i) Errors which do not affect trial balance (ii) Errors which affect trial balance • preparation of suspense account.	belong to the current year but may happen in next year. • appreciate the difference between reserve and reserve fund. • state the need and objectives of preparing trial balance and develop the skill of preparing trial balance. • appreciate that errors may be committed during the process of accounting. • understand the meaning of different types of errors and their effect on trial balance. • develop the skill of identification and location of errors and their rectification and preparation of suspense account.

Part B: Financial Accounting - II

Unit 3: Financial Statements of Sole Proprietorship

Units/Topics	**Learning Outcomes**
Financial Statements Meaning, objectives and importance; Revenue and Capital Receipts; Revenue and Capital Expenditure; Deferred Revenue expenditure. Opening journal entry. Trading and Profit and Loss Account: Gross Profit, Operating profit and Net profit. Preparation. Balance Sheet: need, grouping and marshalling of assets and liabilities. Preparation. Adjustments in preparation of financial statements with respect to closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, Abnormal loss, Goods taken for personal use/staff welfare, interest on capital and managers commission. Preparation of Trading and Profit and Loss account and Balance Sheet of a sole proprietorship with adjustments. **Incomplete Records**	**After going through this Unit, the students will be able to:** • state the meaning of financial statements the • purpose of preparing financial statements. • state the meaning of gross profit, operating profit and net profit and develop the skill of preparing trading and profit and loss account. • explain the need for preparing balance sheet. • understand the technique of grouping and marshalling of assets and liabilities. • appreciate that there may be certain items other than those shown in trial balance which may need adjustments while preparing financial statements. • develop the understanding and skill to do adjustments for items and their presentation in financial statements like depreciation, closing stock, provisions, abnormal loss etc. • develop the skill of preparation of trading and profit and loss account and balance sheet.

Features, reasons and limitations. Ascertainment of Profit/Loss by Statement of Affairs method. (excluding conversion method)	

Part C: Project Work (Any One)

1. Collection of source documents, preparation of vouchers, recording of transactions with the help of vouchers.
2. Preparation of Bank Reconciliation Statement with the given cash book and the pass book with twenty to twenty-five transactions.
3. Comprehensive project of any sole proprietorship business. This may state with journal entries and their ledgering, preparation of Trial balance. Trading and Profit and Loss Account and Balance Sheet. Expenses, incomes and profit (loss), assets and liabilities are to be depicted using pie chart / bar diagram. This may include simple GST related transactions.

PROJECT WORK

It is suggested to undertake this project after completing the unit on preparation of financial statements. The student(s) will be allowed to select any business of their choice or develop the transaction of imaginary business. The project is to run through the chapters and make the project an interesting process. The amounts should emerge as more realistic and closer to reality.

Specific Guidelines for Teachers

Give a list of options to the students to select a business form. You can add to the given list:

1. A beauty parlour
2. Men's saloon
3. A tailoring shop
4. A canteen
5. A cake shop
6. A confectionery shop
7. A chocolate shop
8. A dry cleaner
9. A stationery shop
10. Men's wear
11. Ladies wear
12. Kiddies wear
13. A Saree shop
14. Artificial jewellery shop
15. A small restaurant
16. A sweet shop
17. A grocery shop
18. A shoe shop
19. A coffee shop
20. A music shop
21. A juice shop
22. A school canteen
23. An ice cream parlour
24. A sandwich shop
25. A flower shop

After selection, advise the student(s) to visit a shop in the locality (this will help them to settle on a realistic amounts different items. The student(s) would be able to see the things as they need to invest in furniture, decor, lights, machines, computers etc.

A suggested list of different item is given below.

1. Rent
2. Advance rent [approximately three months]
3. Electricity deposit
4. Electricity bill
5. Electricity fitting
6. Water bill
7. Water connection security deposit
8. Water fittings
9. Telephone bill
10. Telephone security deposit
11. Telephone instrument
12. Furniture
13. Computers
14. Internet connection
15. Stationery
16. Advertisements
17. Glow sign
18. Rates and Taxes
19. Wages and Salary
20. Newspaper and magazines
21. Petty expenses
22. Tea expenses
23. Packaging expenses
24. Transport
25. Delivery cycle or a vehicle purchased
26. Registration
27. Insurance
28. Auditors fee
29. Repairs & Maintenance
30. Depreciations
31. Air conditioners
32. Fans and lights
33. Interior decorations
34. Refrigerators
35. Purchase and sales

At this stage, performas of bulk of originality and ledger may be provided to the students and they may be asked to complete the same.

In the next step the students are expected to prepare the trial balance and the financial statements.

Suggested Question Paper Design
Accountancy (Subject Code 055)

Theory: 80 Marks
Project: 20 Marks

Class XI (2026-2027)

3 hrs.

SN	Typology of Questions	Marks	Percentage
1	**Remembering and Understanding**: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	32	40%
3	**Applying**: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	24	30%
4	**Analysing, Evaluating and Creating:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	24	30%
	TOTAL	**80**	**100%**

Accountancy (Subject Code 055)

Class-XII (2026-27)

Theory: 80 Marks **3 Hours**

Project: 20 Marks

Units			**Marks**
Part A	**Accounting for Partnership Firms and Companies**		
	Unit 1. Accounting for Partnership Firms		36
	Unit 2. Accounting for Companies		24
			60
Part B	**Financial Statement Analysis**		
	Unit 3. Analysis of Financial Statements		12
	Unit 4. Cash Flow Statement		8
			20
Part C	**Project Work**		20
	Project work will include:		
	Project File	12 Marks	
	Viva Voce	8 Marks	
Or			
Part B	**Computerized Accounting**		
	Unit 4. Computerized Accounting		20
Part C	**Practical Work**		20
	Practical work will include:		
	Practical File 12 Marks		
	Viva Voce 8 Marks		

Part A: Accounting for Partnership Firms and Companies

Unit 1: Accounting for Partnership Firms

Units/Topics	Learning Outcomes
• Partnership: features, Partnership Deed. • Provisions of the Indian Partnership Act 1932 in the absence of partnership deed. • Fixed v/s fluctuating capital accounts. Preparation of Profit and Loss Appropriation account- division of profit among partners, guarantee of profits. • Past adjustments (relating to interest on capital, interest on drawing, salary and profit sharing ratio). • Goodwill: meaning, nature, factors affecting and methods of valuation - average profit, super profit and capitalization. ***Note:*** *Interest on partner's loan is to be treated as a charge against profits.* Goodwill: meaning, factors affecting, need for valuation, methods for calculation (average profits, super profits and capitalization), adjusted through partners capital/ current account. **Accounting for Partnership firms - Reconstitution and Dissolution.** • **Change in the Profit Sharing Ratio** among the existing partners - sacrificing ratio, gaining ratio, accounting for revaluation of assets and reassessment of liabilities and treatment of reserves, accumulated profits and losses. Preparation of revaluation account and balance sheet. • **Admission of a partner** - effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill (as per AS 26), treatment for revaluation of assets and re-assessment of liabilities, treatment of reserves, accumulated profits and losses,	**After going through this Unit, the students will be able to:** • state the meaning of partnership, partnership firm and partnership deed. • describe the characteristic features of partnership and the contents of partnership deed. • discuss the significance of provision of Partnership Act in the absence of partnership deed. • differentiate between fixed and fluctuating capital, outline the process and develop the understanding and skill of preparation of Profit and Loss Appropriation Account. • develop the understanding and skill of preparation profit and loss appropriation account involving guarantee of profits. • develop the understanding and skill of making past adjustments. • state the meaning, nature and factors affecting goodwill • develop the understanding and skill of valuation of goodwill using different methods. • state the meaning of sacrificing ratio, gaining ratio and the change in profit sharing ratio among existing partners. • develop the understanding of accounting treatment of revaluation assets and reassessment of liabilities and treatment of reserves and accumulated profits by preparing revaluation account and balance sheet. • explain the effect of change in profit sharing ratio on admission of a new partner. • develop the understanding and skill of

adjustment of capital accounts and preparation of capital, current account and balance sheet. • **Retirement and death of a partner:** effect of retirement / death of a partner on change in profit sharing ratio, treatment of goodwill (as per AS 26), treatment for revaluation of assets and reassessment of liabilities, adjustment of accumulated profits, losses and reserves, adjustment of capital accounts and preparation of capital, current account and balance sheet. Preparation of loan account of the retiring partner. • Calculation of deceased partner's share of profit till the date of death. Preparation of deceased partner's capital account and his executor's account. • **Dissolution of a partnership firm:** meaning of dissolution of partnership and partnership firm, types of dissolution of a firm. Settlement of accounts - preparation of realization account, and other related accounts: capital accounts of partners and cash/bank a/c (excluding piecemeal distribution, sale to a company and insolvency of partner(s)). **Note:** (i) If the realized value of tangible assets is not given it should be considered as realized at book value itself. (ii) If the realized value of intangible assets is not given it should be considered as nil (zero value). (ii) In case, the realization expenses are borne by a partner, clear indication should be given regarding the payment thereof.	treatment of goodwill as per AS-26, treatment of revaluation of assets and re-assessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of capital, current account and balance sheet of the new firm. • explain the effect of retirement / death of a partner on change in profit sharing ratio. • develop the understanding of accounting treatment of goodwill, revaluation of assets and re-assessment of liabilities and adjustment of accumulated profits, losses and reserves on retirement / death of a partner and capital adjustment. • develop the skill of calculation of deceased partner's share till the time of his death and prepare deceased partner's and executor's account. • discuss the preparation of the capital accounts of the remaining partners and the balance sheet of the firm after retirement / death of a partner. • understand the situations under which a partnership firm can be dissolved. • develop the understanding of preparation of realisation account and other related accounts.

Unit-3 Accounting for Companies

Units/Topics	**Learning Outcomes**
Accounting for Share Capital • Features and types of companies. • Share and share capital: nature and types.	**After going through this Unit, the students will be able to:** • state the meaning of share and share capital

• Accounting for share capital: issue and allotment of equity and preferences shares. Public subscription of shares - over subscription and under subscription of shares; issue at par and at premium, calls in advance and arrears (excluding interest), issue of shares for consideration other than cash. • Concept of Private Placement and Employee Stock Option Plan (ESOP), Sweat Equity. • Accounting treatment of forfeiture and re-issue of shares. • Disclosure of share capital in the Balance Sheet of a company. **Accounting for Debentures** • Debentures: Meaning, types, Issue of debentures at par, at a premium and at a discount. Issue of debentures for consideration other than cash; Issue of debentures with terms of redemption; debentures as collateral security-concept, interest on debentures (concept of TDS is excluded). Writing off discount / loss on issue of debentures. Note: Discount or loss on issue of debentures to be written off in the year debentures are allotted from Security Premium Reserve (if it exists) and then from Statement of Profit and Loss as Financial Cost (AS 16)	and differentiate between equity shares and preference shares and different types of share capital. • understand the meaning of private placement of shares and Employee Stock Option Plan. • explain the accounting treatment of share capital transactions regarding issue of shares. • develop the understanding of accounting treatment of forfeiture and re-issue of forfeited shares. • describe the presentation of share capital in the balance sheet of the company as per schedule III part I of the Companies Act 2013. • explain the accounting treatment of different categories of transactions related to issue of debentures. • develop the understanding and skill of writing of discount / loss on issue of debentures. • understand the concept of collateral security and its presentation in balance sheet. • develop the skill of calculating interest on debentures and its accounting treatment. • state the meaning of redemption of debentures.

Part B: Financial Statement Analysis

Unit 4: Analysis of Financial Statements

Units/Topics	Learning Outcomes
Financial statements of a Company: Meaning, Nature, Uses and importance of financial Statement. Statement of Profit and Loss and Balance Sheet in	**After going through this Unit, the students will be able to:** • develop the understanding of major headings and sub-headings (as per Schedule III to the

prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013) **Note:** *Exceptional items, extraordinary items and profit (loss) from discontinued operations are excluded.* • **Financial Statement Analysis: Meaning, Significance** Objectives, importance and limitations. • **Tools for Financial Statement Analysis:** Comparative statements, common size statements, Ratio analysis, Cash flow analysis. • **Accounting Ratios:** Meaning, Objectives, Advantages, classification and computation. • **Liquidity Ratios:** Current ratio and Quick ratio. • **Solvency Ratios:** Debt to Equity Ratio, Total Asset to Debt Ratio, Proprietary Ratio and Interest Coverage Ratio. Debt to Capital Employed Ratio. • **Activity Ratios:** Inventory Turnover Ratio, Trade Receivables Turnover Ratio, Trade Payables Turnover Ratio, Fixed Asset Turnover Ratio, Net Asset Turnover Ratio and Working Capital Turnover Ratio. • **Profitability Ratios:** Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio and Return on Investment.	Companies Act, 2013) of balance sheet as per the prescribed norms / formats. • state the meaning, objectives and limitations of financial statement analysis. • discuss the meaning of different tools of 'financial statements analysis'. • develop the skill of preparation of preparation of comparative and common size statement, understand their uses and difference between the two. • state the meaning, objectives and significance of different types of ratios. • develop the understanding of computation of current ratio and quick ratio. • develop the skill of computation of debt equity ratio, total asset to debt ratio, proprietary ratio and interest coverage ratio. • develop the skill of computation of inventory turnover ratio, trade receivables and trade payables ratio and working capital turnover ratio and others. • develop the skill of computation of gross profit ratio, operating ratio, operating profit ratio, net profit ratio and return on investment.

Note: Net Profit Ratio is to be calculated on the basis of profit before and after tax.

Unit 5: Cash Flow Statement

Units/Topics	**Learning Outcomes**
• Meaning, objectives Benefits, Cash and Cash Equivalents, Classification of Activities and preparation (as per AS 3 (Revised) (Indirect Method only)	**After going through this Unit, the students will be able to:** • state the meaning and objectives of cash flow statement.

Note: ***(i)*** *Adjustments relating to depreciation and amortization, profit or loss on sale of assets including investments, dividend (both final and interim) and tax.* ***(ii)*** *Bank overdraft and cash credit to be treated as short term borrowings.* ***(iii)*** *Current Investments to be taken as Marketable securities unless otherwise specified.*	• develop the understanding of preparation of Cash Flow Statement using indirect method as per AS 3 with given adjustments.

Note: *Previous years' Proposed Dividend to be given effect, as prescribed in AS-4, Events occurring after the Balance Sheet date. Current years' Proposed Dividend will be accounted for in the next year after it is declared by the shareholders.*

Project Work

One specific project based on financial statement analysis of a company covering any two aspects from the following:

1. Comparative and common size financial statements
2. Accounting Ratios
3. Segment Reports
4. Cash Flow Statements

OR

Part B: Computerised Accounting

Unit 4: Computerised Accounting

Overview of Computerised Accounting System

- Introduction: Application in Accounting.
- Features of Computerised Accounting System.
- Structure of CAS.
- Software Packages: Generic; Specific; Tailored.

Accounting Application of Electronic Spreadsheet.

- Concept of electronic spreadsheet.
- Features offered by electronic spreadsheet.
- Application in generating accounting information - bank reconciliation statement; asset accounting; loan repayment of loan schedule, ratio analysis
- Data representation- graphs, charts and diagrams.

Using Computerized Accounting System.

- Steps in installation of CAS, codification and Hierarchy of account heads, creation of accounts.
- Data: Entry, validation and verification.
- Adjusting entries, preparation of balance sheet, profit and loss account with closing entries and opening entries.
- Need and security features of the system.

Part C: Practical Work

Prescribed Books:

Financial Accounting -I	Class XI	NCERT Publication
Accountancy -II	Class XI	NCERT Publication
Accountancy -I	Class XII	NCERT Publication
Accountancy -II	Class XII	NCERT Publication
Accountancy – Computerised Accounting System	Class XII	NCERT Publication

Suggested Question Paper Design
Accountancy (Subject Code 055)
Class XII (2026-27)

Theory: 80 Marks **3 hrs.**
Project: 20 Marks

SN	Typology of Questions	Marks	Percentage
1	**Remembering and Understanding**: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	32	40%
3	**Applying**: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	24	30%
4	**Analysing, Evaluating and Creating:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	24	30%
	TOTAL	**80**	**100%**

Mathematics
Subject Code – 041 & 241
Class – X (2026-27)

The Mathematics curriculum for the Secondary stage has been redesigned in alignment with the National Education Policy 2020 and the National Curriculum Framework for School Education (NCF – SE) 2023, prioritizing deep conceptual understanding and logical reasoning. The revised syllabus places strong emphasis on developing core mathematical competencies, including problem-solving, visualisation, mathematical modelling, mathematical communication, computational thinking, and data analytics. The syllabus integrate Indian Knowledge System with contemporary mathematical knowledge, highlighting the rich contributions of Indian mathematicians to foster a sense of pride and historical context. A deliberate shift from rote learning to competency-based education ensures that students build deep conceptual understanding and logical reasoning rather than mere procedural fluency. Greater emphasis has been laid on the integration of real-life applications and experiential learning, encouraging students to connect mathematical concepts with everyday situations and cross-disciplinary contexts. Greater emphasis has been laid on competency based learning outcomes encouraging students to connect mathematical concepts with everyday situations and inter-disciplinary contexts. Continuous and holistic assessment through projects, activities, and investigations forms an integral part of the learning process, moving beyond summative examinations.

At the secondary stage, the curriculum focuses on developing essential global mathematical competencies, including mathematical representation through quantities and relations, mathematical modelling and algorithm building, and effective mathematical communication. The study of the number system, algebra, geometry, mensuration, statistics and probability is designed to build a strong foundation for higher education while enhancing functional life skills. The curriculum thus aims to build rich mathematical learning frameworks not only for higher academic pursuits but also for the practical demands of life in a rapidly changing, data-driven world.

Objectives The broad objectives of teaching Mathematics at the secondary stage are to help the learners to:

- develop logical thinking, critical reasoning, and a structured approach to problem-solving;
- build the ability to recognise, analyse, and solve diverse problems with confidence and adaptability;
- communicate mathematical ideas effectively using appropriate language, symbols, and representations;
- appreciate the beauty, history, and real-life relevance of Mathematics as a discipline;

- connect mathematical concepts to fields such as Science, Technology, Engineering, and Economics;
- engage in both collaborative and independent mathematical exploration and learning;
- develop habits of precision, accuracy, and logical consistency in mathematical work;
- build confidence to explore, experiment, and grow in mathematical understanding without fear of failure.

COURSE STRUCTURE CLASS –X

Units	Unit Name	Marks
I	NUMBER SYSTEMS	06
II	ALGEBRA	20
III	COORDINATE GEOMETRY	06
IV	GEOMETRY	15
V	TRIGONOMETRY	12
VI	MENSURATION	10
VII	STATISTICS AND PROBABILITY	11
	TOTAL	**80**

S. No.	Content	Competencies	Explanation
	UNIT I: NUMBER SYSTEMS		
1.	**REAL NUMBERS** 1. Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples 2. Proofs of irrationality of $\sqrt{2}, \sqrt{3}, \sqrt{5}$	• Develops understanding of numbers, including the set of real numbers and its properties. • Extends the understanding of powers (radical powers) and exponents. • Applies Fundamental Theorem of Arithmetic to solve problems related to real life contexts.	• Describes Fundamental Theorem of Arithmetic with examples • Prove algebraically the Irrationality of numbers like $\sqrt{2}, \sqrt{3}, \sqrt{5}, 3 + 2\sqrt{5}$ etc.
	UNIT II: ALGEBRA		
1.	**POLYNOMIALS** 1. Zeros of a polynomial 2. Relationship between zeros and coefficients of quadratic polynomials.	• develops a relationship between algebraic and graphical methods of finding the zeroes of a polynomial.	• Find the zeros of polynomial graphically and algebraically and verifying the relation between zeros and coefficients of quadratic polynomials.

2.	**PAIR OF LINEAR EQUATIONS IN TWO VARIABLES** 1. Pair of linear equations in two variables and graphical method of their solution, consistency/inconsistency. 2. Algebraic conditions for number of solutions. 3. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination. Simple situational problems.	• Describes plotting a pair of linear equations and graphically finding the solution. • Models and solves contextualised problems using equations (e.g., simultaneous linear equations in two variables).	• Find the solution of pair of linear equations in two variables graphically and algebraically (substitution and elimination method)
3.	**QUADRATIC EQUATIONS** 1. Standard form of a quadratic equation $ax^2 + bx + c = 0, (a \neq 0)$. 2. Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots. 3. Situational problems based on quadratic equations related to day-to-day activities to be incorporated	• demonstrates strategies of finding roots and determining the nature of roots of a quadratic equation.	• Solves quadratic equations using factorization and quadratic formula • Determines the nature of roots using discriminant • Formulates and solves problems based on real life context
4.	**ARITHMETIC PROGRESSIONS** 1. Motivation for studying Arithmetic Progression 2. Derivation of the nth term and sum of the first n terms of AP and their application in solving daily life problems.	• Develops strategies to apply the concept of A.P. to daily life situations.	• Applies concepts of AP to find the nth term and sum of n terms. • Application of AP in real life problems

UNIT III: COORDINATE GEOMETRY			
1.	**Coordinate Geometry** **1. Review:** Concepts of coordinate geometry. Distance formula. Section formula (internal division).	• Derives formulae to establish relations for geometrical shapes in the context of a coordinate plane, such as, finding the distance between two given points, to determine the coordinates of a point between any two given points.	• Solves problems using distance formula and section formula
UNIT IV: GEOMETRY			
1.	**TRIANGLES** Definitions, examples, counter examples of similar triangles. 1. (Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio. 2. State (without proof) If a line divides two sides of a triangle in the same ratio, the line is parallel to the third side. 3. State (without proof) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar. 4. State (without proof) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar. 5. State (without proof) If one angle of a triangle is equal to one angle of another triangle and the sides including these angles are proportional, the two triangles are similar.	• works out ways to differentiate between congruent and similar figures. • establishes properties for similarity of two triangles logically using different geometric criteria established earlier such as, Basic Proportionality Theorem, etc.	• Prove Basic Proportionality theorem and applying the theorem and its converse in solving questions • Prove similarity of triangles using different similarity criteria

2.	**CIRCLES** Tangent to a circle at point of contact. 1. (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact. 2. (Prove) The lengths of tangents drawn from an external point to a circle are equal.	• derives proofs of theorems related to the tangents of circles.	• Prove the theorems based on the tangent to a circle. • Applies the concept of tangents of circle to solve various problems.
UNIT V: TRIGONOMETRY			
1.	**INTRODUCTION TO TRIGONOMETRY** 1. Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined) 2. Motivate the ratios whichever are defined at $0°$ and $90°$. Values of the trigonometric ratios of $30°$, $45°$ and $60°$. 3. Relationships between the ratios.	• Understands the definitions of the basic trigonometric functions (including the introduction of the sine and cosine functions).	• Evaluates trigonometric ratios • Describes trigonometric ratios of standard angles and solving related expressions
2.	**TRIGONOMETRIC IDENTITIES** 1. Proof and applications of the identity $\sin^2 A + \cos^2 A = 1$. 2. Only simple identities to be given.	• Uses Trigonometric identities to solve problems.	• Proves trigonometric identities using $\sin^2 A + \cos^2 A = 1$ and other identities
3.	**HEIGHTS AND DISTANCES: Angle of elevation, Angle of Depression.** 1. Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only 30°, 45°, and 60°.	• Applies Trigonometric ratios in solving problems in daily life contexts like finding heights of different structures or distance from them.	• Find heights and distances in real life word problems using trigonometric ratios

UNIT VI: MENSURATION			
1.	**AREAS RELATED TO CIRCLES** 1. Area of sectors and segments of a circle. 2. Problems based on areas and perimeter /circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of 60°, 90° and 120° only.	• Derives and uses formulae to calculate areas of plane figures.	• Visualises and evaluates areas of sector and segment of a circle
2.	**SURFACE AREAS AND VOLUMES** 1. Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.	• Visualises and uses mathematical thinking to discover formulae to calculate surface areas and volumes of solid objects (cubes, cuboids, spheres, hemispheres, right circular cylinders/cones, and their combinations).	• Evaluates the surface areas and volumes of combinations of solids by visualisation
UNIT VII: STATISTICS AND PROBABILITY			
1.	**STATISTICS** 1. Mean, median and mode of grouped data (bimodal situation to be avoided).	• calculates mean, median and mode for different sets of data related with real life contexts.	• Computes the mean, of a grouped frequency distribution using direct, assumed mean and step deviation method. • Computes the median and mode of grouped frequency distribution by algebraic method
2.	**PROBABILITY** 1. Classical definition of probability. 2. Simple problems on finding the probability of an event.	• Applies concepts from probability to solve problems on the likelihood of everyday events.	• Determines the probabilities in simple real-life problems

MATHEMATICS- STANDARD (Code – 041)

QUESTION PAPER DESIGN

CLASS – X (2026-27)

Time: 3 Hours **Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	**Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
3	**Analysing:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	18	22
	Total	**80**	**100**

INTERNAL ASSESSMENT	**20 MARKS**
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

MATHEMATICS-BASIC (Code – 241)

QUESTION PAPER DESIGN

CLASS – X (2026-27)

Time: 3Hours **Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	**Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	60	75
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	12	15
3	**Analysing:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	8	10
	Total	**80**	**100**

INTERNAL ASSESSMENT	**20 MARKS**
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

PRESCRIBED BOOKS:

1. Mathematics - Textbook for class X - NCERT Publication
2. Guidelines for Mathematics Laboratory in Schools, class X - CBSE Publication
3. Laboratory Manual - Mathematics, secondary stage - NCERT Publication
4. Mathematics exemplar problems for class X, NCERT publication.

संस्कृतम्

विषय-कोड्-सङ्ख्या - 122

कक्षा –दशमी (2026-27)

पाठ्यक्रमः परीक्षानिर्देशाश्च

भाष्यते व्यवहारादिषु प्रयुज्यते इति भाषा, मानवः स्वमनसि विद्यमानान् विचारान् भावनाः अनुभूतिं च अर्थयुक्तैः ध्वनिभिः लिखितसङ्केतैः च व्यक्तीकरोति सा भाषा। भाषा अभिप्रायप्रकटनस्य साधनम्। वस्तुतः लोके द्वयोः मनुष्ययोः मध्ये परस्परम् अवबोधनाय, भावग्रहणाय, भावविनिमयाय च भाषया विना न अन्यत् स्पष्टतमं सरलतमं च साधनं विद्यते। लोके बहव्यः भाषाः सन्ति यासु संस्कृतभाषा अतिप्राचीनतमा समृद्धा च अस्ति। संस्कृतभाषायाम् एव सन्ति ऋग्यजुस्सामाथर्वाः चत्वारः वेदाः, शिक्षा, व्याकरणं, निरुक्तं, ज्योतिषं, छन्दः कल्पः चेति षडङ्गानि, चतुर्दशविद्याः, विज्ञानम्, आयुर्वेदः, योगशास्त्रादयः ग्रन्थाः। अतः संस्कृतं केवलं भाषा न अपितु किञ्चन जीवनदर्शनम् इति। इयं विद्या (भाषा) भारतीयानां प्रतिष्ठात्मिका कामधेनुः समस्तज्ञानप्रदात्री, ऐक्यप्रदात्री, धर्मार्थकाममोक्षप्रदात्री च अस्ति। सृष्टेः आदितः अद्यावधिः यत् शिक्षणं ज्ञानविज्ञानं च अस्ति तत् सर्वं अस्यां भाषायामेव सन्निहितम् अस्ति। अतिसूक्ष्मभावनां प्रकटयितुं स्पष्टीकर्तुं संस्कृतं विना नैव अन्यत्र विद्यते सामर्थ्यम्। भारतीयं सर्वस्वं विश्वस्य समग्रं तत्त्वं च अस्यां भाषायाम् अस्ति।

संस्कृतस्य भाषावैज्ञानिकत्त्वम् – ऐतिहासिक-वर्णनात्मक-तुलनात्मकाध्ययन-द्वारा भाषायाः प्रकृतेः विकासोत्पत्तेः संरचनायाः अध्ययनपूर्वकं सर्वेषां विषयाणां सैद्धान्तिकः निर्णयः भाषाविज्ञानेन क्रियते। भाषाविज्ञान-नामकशास्त्रे शब्दानाम् उत्पत्तिः, वाक्यानां संरचना इत्यादीनां विषयाणां विचारः क्रियते। भाषाविज्ञानस्य सम्बन्धः सर्वेषां मानवानां भाषाभिः सह अस्ति। एवं भाषाविज्ञाने ध्वनेः, ध्वनि-उच्चारणोपयोगिनां स्वरयन्त्रमुखजिह्वादि-अङ्गानां प्रकृति-प्रत्ययादीनां, संज्ञासर्वनाम-क्रिया-विशेषणादीनां नामाख्यात-उपसर्जननिपातानां पदपदार्थविषयकानां विकारादीनां विकारमूलककारकाणाम् अन्येषां विविधविषयाणाञ्च अध्ययनं क्रियते। भाषाविज्ञाने संस्कृतभाषा-विषयक-वर्णोत्पत्ति-सिद्धान्तस्य अतीव वैज्ञानिकं निरूपणं कृतं वर्तते।

विश्वस्य सर्वासु भाषासु संस्कृतभाषा प्राचीनतमा अस्ति। प्रायः सर्वासु भाषासु संस्कृतपरकशब्दाः उपलभ्यन्ते। संस्कृतभाषा भारतीयभाषाणां जननी इति कथ्यते। सर्वासु भारतीयभाषासु संस्कृतभाषा अन्तर्लीना अस्ति इति सर्वे अङ्गीकुर्वन्ति।

भारतदेशः बहुभाषी देशोऽस्ति। अस्मिन् देशे अनेकतायाम् एकतावर्धिनी भाषेयं सामाजिकसमरसतायै जीवनविकासाय च आवश्यकी वर्तते। संस्कृतस्य सांस्कृतिकं महत्त्वं वर्णयन्तः विद्वांसः कथयन्ति "भारतस्य प्रतिष्ठे द्वे संस्कृतं संस्कृतिस्तथा, संस्कृतिमूलं संस्कृतम्, साहित्यं संस्कृतिवाहकञ्च इति।" एषा संस्कृतिः न केवलं भारतस्य अपि तु विश्वस्य मुकुटायमाना अस्ति। उक्तं च -

सत्यमहिंसादिगुणैः श्रेष्ठा विश्वबन्धुत्वशिक्षिका।
विश्वशान्तिः सुखधात्री भारतीया हि संस्कृतिः॥
संस्कृते संस्कृतिर्ज्ञेया संस्कृते सकलाः कलाः।
संस्कृते सकलं ज्ञानं संस्कृते किन्न विद्यते॥

एवं संस्कृतभाषा परिनिष्ठिता, दोषरहिता, सरला, गभीरा, यथार्था वैज्ञानिकी च भाषा अस्ति। सम्प्रति युगेस्मिन् प्रमुखैः उद्देश्यैः संस्कृतभाषा शिक्षणीया अस्ति।

शिक्षणोद्देश्यानि –

* वसुधैव-कुटुम्बकम् इति भावनाविकासः।

* भारतीयभाषाणां संरक्षणम्।
* संस्कृतभाषया सम्प्रेषणकौशलविकासः।
* परस्परं संस्कृतसम्भाषणेन भावविनिमयः।
* संस्कृत-भाषया एव संस्कृत-शिक्षणम्।
* श्रवण-भाषण-पठन-लेखनेति चतुर्णां भाषिक-कौशलानां विकासः।
* बौद्धिकविकासपुरस्सरम् आध्यात्मिकनैतिकज्ञानम्।
* मानसिकविकासानन्दानुभूतिः रसानुभूतिश्च।
* भारतीयसंस्कृतेः संरक्षणं ज्ञानवर्धनञ्च।
* आत्मानुशासनसंस्थापनार्थम्
* भाषाशिक्षणकौशलानि वर्धनाय नैपुण्यप्राप्तिः।
* परस्परं वार्तालापमाध्यमेन भावविनिमयः।
* संस्कृतसाहित्यस्य अध्ययनेन ज्ञानानन्दस्य अनुभूतिः।
* मानवजीवनस्य विकासपूर्वकं कल्याणम्।
* संस्कृतभाषया छात्राणां सर्वविधविकासः।

शिक्षणप्रविधयः –

* संस्कृतमाध्यमेन सम्भाषणविधिना शनैः शनैः संस्कृतशिक्षणं सम्भविष्यति। गतिवर्धनाय संस्कृताध्यापकैः धैर्येण स्वकीयाध्यापन-कार्यक्रमाणां नियोजनम्। रुचिकरभाषाभ्यासेन भाषिकोपलब्धिः। भाषिकाभ्यासाय वार्तालाप-कथाश्रवण-वादविवाद-संवाद-वर्णनपरकप्रतियोगिताभिः भाषाशिक्षणं कारयितुं शक्यते।
* विभिन्नप्रामाणिकसंस्थानां कार्यक्रमाः साहित्यसामग्र्यश्च प्रयुज्य उत्तमशिक्षणं कर्तुं शक्यते।
* संस्कृतभाषया उपलब्ध-दृश्य-श्रव्य-सामग्री-माध्यमेन भाषाभ्यासः।
* विभिन्नपाठ्यसामग्रीद्वारा शिक्षकः स्वकीयं शिक्षणकार्यं रुचिकरं कर्तुं शक्नोति।
* भाषाशिक्षकः छात्रान् स्नेहपूर्वकम् (आत्मीयभावेन) पाठयेत्।
* अद्यतनपूर्वकं साहित्यकोश-शब्दकोश-सन्दर्भग्रन्थानां सहायतया छात्राणां तत्परतावर्धनम्।
* प्राचीनार्वाचीनयोर्मध्ये समन्वयस्थापनद्वारा नूतनशिक्षणविधिभिश्च संस्कृतशिक्षणम्।

कौशलानि-

* **श्रवणकौशलम्** – भावाधिग्रहणाय ध्वन्यात्मकं भाषायाः प्रथमं कौशलम् इदम्। अस्य साधनानि- गुरुमुखम्, आकाशवाणी, दूरवाणी, परिवारसदस्याः, समाजः, कक्ष्याः, ध्वनिमुद्रणयन्त्रम्, दूरदर्शनम् इत्यादीनि।
* **भाषणकौशलम्**- भावाभिव्यक्तये ध्वन्यात्मकं भाषायाः इदं द्वितीयं कौशलम्। वाग्-रूपं भावप्रकटनम् एव भाषणम्, परिसरप्रभावेण आधारेण वा भाषणशक्तिः जायते।
* **पठनकौशलम्** – भावाधिग्रहणाय लिप्यात्मकं भाषायाः तृतीयं कौशलम् इदम्। (अर्थग्रहणपूर्वकं स्पष्टरूप-वाचनम् इत्यर्थः)
* **लेखनकौशलम्**- भावाभिव्यक्तये लिप्यात्मकं भाषायाः चतुर्थं कौशलम् इदम्। (ध्वनिरूपे विद्यमानं भाषांशं लिपिरूपे अवतारणं लेखनम् इति उच्यते)
* ज्ञानात्मक-अवबोधनात्मक-अनुप्रयोगात्मक-विश्लेषणात्मक-संश्लेषणात्मक-मूल्याङ्कनात्मक-लक्षिताधिगमनविशेषाः।

संस्कृतम्

विषय-कोड्-सङ्ख्या - 122

कक्षा - दशमी (2026-27)

वार्षिकमूल्याङ्कनाय निर्मिते प्रश्नपत्रे चत्वारः खण्डाः भविष्यन्ति -

'क' खण्डः	**अपठित-अवबोधनम्**	**10 अङ्काः**
'ख' खण्डः	**रचनात्मक-कार्यम्**	**15 अङ्काः**
'ग' खण्डः	**अनुप्रयुक्त-व्याकरणम्**	**25 अङ्काः**
'घ' खण्डः	**पठित-अवबोधनम्**	**30 अङ्काः**

खण्डानुसारं विषयाः मूल्यभारः च

क्र. सं.	**विषयाः**	**प्रश्नप्रकाराः**	**मूल्यभारः**
	'क' खण्डः **अपठितावबोधनम्** **10 अङ्काः**		
1	एकः गद्यांशः 80-100 शब्दपरिमितः	अति-लघूत्तरात्मकौ पूर्णवाक्यात्मकौ शीर्षकम् (लघूत्तरात्मकः) भाषिककार्यम् (बहुविकल्पात्मकाः)	2×1=2 2×2=4 1×1=1 3×1=3
		सम्पूर्णभारः	**10 अङ्काः**
	'ख' खण्डः **रचनात्मककार्यम्** **15 अङ्काः**		
2.	औपचारिकम् अथवा अनौपचारिकं पत्रम् (मञ्जूषायाः सहायतया पूर्णं पत्रं लेखनीयम्)	निबन्धात्मकः	5
3.	चित्रवर्णनम् अथवा अनुच्छेदलेखनम्	निबन्धात्मकः	5
4.	हिन्दी/आङ्ग्लभाषातः संस्कृतेन अनुवादः	पूर्णवाक्यात्मकः	5×1=5
		सम्पूर्णभारः	**15 अङ्काः**
	'ग' खण्डः **अनुप्रयुक्तव्याकरणम्** **25 अङ्काः**		
5.	सन्धिः	लघूत्तरात्मकाः	4×1=4
6.	समासः	बहुविकल्पात्मकाः	4×1=4
7.	प्रत्ययाः	बहुविकल्पात्मकाः	4×1=4
8.	वाच्यप्रकरणम्	बहुविकल्पात्मकाः	3×1=3
9.	समयः	लघूत्तरात्मकाः	4×1=4
10.	अव्ययपदानि	बहुविकल्पात्मकाः	3×1=3
11.	संशोधनकार्यम्	बहुविकल्पात्मकाः	3×1=3
		सम्पूर्णभारः	**25 अङ्काः**

'ब' खण्डः पठितावबोधनम् 30 अङ्काः			
12.	गद्यांशः	अति-लघूत्तरात्मकौ पूर्णवाक्यात्मकौ लघूत्तरात्मकौ (भाषिककार्यम्)	2×½=1 2×1=2 2×1=2
13.	पद्यांशः	अति-लघूत्तरात्मकौ पूर्णवाक्यात्मकौ लघूत्तरात्मकौ (भाषिककार्यम्)	2×½=1 2×1=2 2×1=2
14.	नाट्यांशः	अति-लघूत्तरात्मकौ पूर्णवाक्यात्मकौ लघूत्तरात्मकौ (भाषिककार्यम्)	2×½=1 2×1=2 2×1=2
15.	प्रश्ननिर्माणम्	पूर्णवाक्यात्मकाः	4×1=4
16.	अन्वयः अथवा भावार्थः	पूर्णवाक्यात्मकाः	4×1=4
17.	घटनाक्रमानुसारं वाक्यलेखनम्	पूर्णवाक्यात्मकाः	8×½=4
18.	प्रसङ्गानुकूलम् अर्थलेखनम्	लघूत्तरात्मकाः	3×1=3
		पूर्णभारः	**30 अङ्काः**

सम्पूर्णभारः - 80 अङ्काः

प्रश्नपत्र-प्रारूपम् / संरचना

संस्कृतम्

विषय-कोड्-सङ्ख्या - 122

कक्षा - दशमी (2026-27)

प्रश्नप्रकारः	प्रश्नानां सङ्ख्या	विभाग-सङ्ख्या	प्रतिप्रश्नम् अङ्कभारः	आहत्याङ्काः
अति-लघूत्तरात्मकाः ½ अङ्कः	2+2+2=6	3	½	3
अति-लघूत्तरात्मकाः 1 अङ्कः	2=2	1	1	2
बहुविकल्पात्मकाः 1 अङ्कः	3+4+4+3+3=17	5	1	17
लघूत्तरात्मकाः 1 अङ्कः	2+2+2+1+4+4+3+3=21	8	1	21
दीर्घोत्तरात्मकाः ½ अङ्कः	10+8=18	2	½	9
दीर्घोत्तरात्मकाः 1 अङ्कः	5+5+2+2+2+4+4=24	7	1	24
दीर्घोत्तरात्मकाः 2 अङ्कौ	2=2	1	2	4
			आहत्याङ्काः	**80**

संस्कृतम्

विषय-कोड्-सङ्ख्या - 122

कक्षा - दशमी (2026-27)

वार्षिकं मूल्याङ्कनम् 80 अंकाः

'क' खण्डः **अपठितावबोधनम्**	**(10 अङ्काः)**
1. एकः अपठितः गद्यांशः 80-100 शब्दपरिमितः गद्यांशः, सरलकथा, वर्णनं वा 2+4+1 ➢ एकपदेन पूर्णवाक्येन च अवबोधनात्मकं कार्यम् ➢ शीर्षकलेखनम् ➢ अनुच्छेदाधारितं भाषिकं कार्यम् भाषिककार्याय तत्त्वानि - 3 ✓ वाक्ये कर्तृ-क्रियापदचयनम् ✓ कर्तृ-क्रिया-अन्विितिः ✓ विशेषण-विशेष्यचयनम् ✓ पर्याय-विलोमपदचयनम् ✓ सर्वनामस्थाने संज्ञाप्रयोगः	10
'ख' खण्डः **रचनात्मककार्यम्**	**(15 अङ्काः)**
2. औपचारिकम् अथवा अनौपचारिकं पूर्णपत्रलेखनम् सम्भावितविषयाः – ➢ औपचारिकम् - संस्कृतभाषा-संवर्धनाय, शिक्षामन्त्रालयाय, नाम संशोधनाय नगरनिगमाय, धनादेश-अप्राप्तेः सूचनायै पत्रालयविभागाय, शुल्कनिवारणार्थं प्रधानाचार्याय, प्रकाशकाय इत्यादयः। ➢ अनौपचारिकम् - कुशलक्षेमपत्रम्, वर्धापनपत>म्, निमन्त्रणपत्रम्, परिणामसूचनापत्रम्, विद्यालयवर्णनम् इत्यादयः। 3. चित्राधारितं वर्णनम् अथवा अनुच्छेदलेखनम् (मञ्जूषायाः सहायतया चित्रवर्णनम् अनुच्छेदलेखनं वा करणीयम्) 4. हिन्दीभाषायाम् आङ्ग्लभाषायां वा लिखितानां पञ्चवाक्यानां संस्कृतभाषायाम् अनुवादः	5 5 5
'ग' खण्डः **अनुप्रयुक्तव्याकरणम्**	**(25 अङ्काः)**
5. सन्धिकार्यम् (1+1+2)	4

➢ स्वरसन्धिः - यण्, अयादि, पूर्वरूपसन्धिः ➢ व्यञ्जनसन्धिः - वर्गीयप्रथमवर्णस्य तृतीयवर्णे परिवर्तनम्, प्रथमवर्णस्य पञ्चमवर्णे परिवर्तनम् ➢ विसर्गसन्धिः - विसर्गस्य उत्वम्, रत्वम्, विसर्गलोपः, विसर्गस्य स्थाने स्, श्, ष् 6. समासः - वाक्येषु समस्तपदानां विग्रहः विग्रहपदानां च समासः (1+1+1+1) ➢ तत्पुरुषः – (विभक्ति-तत्पुरुषः, उपपद- तत्पुरुषः, कर्मधारयः) ➢ बहुव्रीहिः ➢ अव्ययीभावः (अनु, उप, सह, निर्, प्रति, यथा) ➢ द्वन्द्वः	4
7. प्रत्ययाः (1+2+1) ➢ कृत्प्रत्ययाः – तव्यत्, अनीयर्, क्त, क्तवतु ➢ तद्धिताः – मतुप्, ठक्, त्व, तल् ➢ स्त्रीप्रत्ययौ – टाप् , ङीप्	4
8. वाच्यपरिवर्तनम् - केवलं लट्लकारे (कर्तृ-कर्म-क्रिया)	3
9. समयः - अङ्कानां स्थाने शब्देषु समयलेखनम् (सामान्य-सपाद-सार्ध-पादोन)	4
10. अव्ययपदानि उच्चैः, च, श्वः, ह्यः, अद्य, अत्र-तत्र, यत्र-कुत्र, इदानीम्, (अधुना, सम्प्रति, साम्प्रतम्) यदा, तदा, कदा, सहसा, वृथा, शनैः, अपि, कुतः, इतस्ततः, यदि-तर्हि, यावत्-तावत्	3
11. अशुद्धि-संशोधनम् (वचन-लिङ्ग-पुरुष-लकार-विभक्तिदृष्ट्या संशोधनम्)	3
'घ' खण्डः **पठितावबोधनम्** **(30 अङ्काः)**	
12. गद्यांशम् अधिकृत्य अवबोधनात्मकं कार्यम् प्रश्नप्रकाराः – एकपदेन पूर्णवाक्येन च प्रश्नोत्तराणि भाषिककार्यम् – ➢ वाक्ये कर्तृ-क्रियापदचयनम् ➢ विशेषण-विशेष्यचयनम् ➢ पर्याय-विलोमपदचयनम् ➢ सर्वनामस्थाने संज्ञाप्रयोगः	5
13. पद्यांशम् अधिकृत्य अवबोधनात्मकं कार्यम् प्रश्नप्रकाराः – एकपदेन पूर्णवाक्येन च प्रश्नोत्तराणि भाषिककार्यम् – ➢ वाक्ये कर्तृ-क्रियापदचयनम् ➢ विशेषण-विशेष्यचयनम् ➢ पर्याय-विलोमपदचयनम् ➢ सर्वनामस्थाने संज्ञाप्रयोगः	5

14. नाट्यांशम् अधिकृत्य अवबोधनात्मकं कार्यम् प्रश्नप्रकाराः – एकपदेन पूर्णवाक्येन च प्रश्नोत्तराणि भाषिककार्यम् – ➢ वाक्ये कर्तृ-क्रियापदचयनम् ➢ विशेषण-विशेष्यचयनम् ➢ पर्याय-विलोमपदचयनम् ➢ सर्वनामस्थाने संज्ञाप्रयोगः	5
15. वाक्येषु रेखाङ्कितपदानि अधिकृत्य चतुर्णां प्रश्नानां निर्माणम्	4
16. श्लोकान्वयः/ एकस्य श्लोकस्य संस्कृतेन भावार्थलेखनम्	4
17. घटनाक्रमानुसारं कथालेखनम्	4
18. प्रसङ्गानुकूलम् अर्थलेखनम् (पाठान् आधृत्य लघूत्तरात्मकाः प्रश्नाः)	3

आहत्याङ्काः - 80

परीक्षायै निर्धारिताः पाठाः

पाठसङ्ख्या	पाठनाम
प्रथमः पाठः	शुचिपर्यावरणम्
द्वितीयः पाठः	बुद्धिर्बलवती सदा
तृतीयः पाठः	शिशुलालनम्
चतुर्थः पाठः	जननी तुल्यवत्सला
पञ्चमः पाठः	सुभाषितानि
षष्ठः पाठः	सौहार्दं प्रकृतेः शोभा
सप्तमः पाठः	विचित्रः साक्षी
अष्टमः पाठः	सूक्तयः
दशमः पाठः	अन्योक्तयः

निर्धारित-पाठ्यपुस्तकानि –

1. "शेमुषी' पाठ्यपुस्तकम् भाग-2" , संशोधितसंस्करणम् (प्रकाशनम् – रा.शै.अनु.प्र.परि. द्वारा)
2. "अभ्यासवान् भव-द्वितीयो भागः" – व्याकरणपुस्तकम् (प्रकाशनम् – रा.शै.अनु.प्र.परि. द्वारा)
3. "व्याकरणवीथिः"- व्याकरणपुस्तकम् (प्रकाशनम् – रा.शै.अनु.प्र.परि. द्वारा)

अवधेयम् -

*** अनुप्रयुक्तव्याकरणस्य अंशानां चयनं यथासम्भवं 'शेमुषी-द्वितीयो भागः इति' पाठ्यपुस्तकात् करणीयम्। यदि ततः न सम्भवति तर्हि 'अभ्यासवान् भव- द्वितीयो भागः' इत्यस्मात् चेतुं शक्यते।**

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दशमी

आन्तरिक-मूल्याङ्कनम् - 20 अङ्काः

उद्देश्यानि

- ❖ छात्राणां सृजनात्मकक्षमतायाः विकासः।
- ❖ श्रवण-भाषण-पठन-लेखनकौशलानां विकासः।
- ❖ चिन्तनक्षमतायाः आत्मविश्वासस्य च संवर्धनम्।

क्र. सं.	गतिविधयः	उदाहरणानि	अङ्काः	निर्देशाः	मूल्याङ्कनबिन्दवः
1.	**आवधिक-परीक्षाः (पीरियोडिक् - असैसमैंट)**	लिखितपरीक्षा	05	विद्यालयेन समये समये लिखितपरीक्षाणाम् आयोजनं करणीयं भवति।	परीक्षासु यत्र विद्यार्थिनः श्रेष्ठाः अङ्काः स्युः तयोः द्वयोः परीक्षयोः एव अधिभारः ग्रहीतव्यः। अपि च आवधिकपरीक्षासु अपि प्रश्नेषु आन्तरिकविकल्पाः देयाः। मूल्याङ्कनसमये यदि छात्रः सर्वान् प्रश्नान् उत्तरति तर्हि छात्रहिताय यत्र अधिकाः अङ्काः सन्ति तेषाम् एव मूल्याङ्कनं करणीयम्।
2	**बहुविधमूल्याङ्कनम्**	❖ कक्षायां पाठितस्य पाठस्य लघुमूल्याङ्कनम् ❖ निर्गतपत्राणि ❖ प्रश्नोत्तरी ❖ मौखिकी परीक्षा ❖ प्रतियोगिताः ❖ प्रश्नमञ्चस्यायोजनम्	05	कक्षायां पाठित-पाठस्य विषयस्य वा बहुविधं मूल्याङ्कनम् अपेक्षितम् अस्ति। अनेन विद्यार्थिनां विविधकौशलानां मूल्याङ्कनं भवेत्।	❖मौलिकता ❖विषयसम्बद्धता ❖शुद्धता ❖समयबद्धता ❖प्रस्तुतीकरणम्
3.	**निवेशसूचिका (पोर्टफोलियो)**	❖ कक्षाकार्यम् ❖ सामूहिक-मूल्याङ्कनम् ❖ स्वमूल्याङ्कनम् ❖ विद्यार्थिनः विषयगताः उपलब्धयः	05	विद्यार्थिभिः कक्षायां कृतानां कार्याणाम् उपलब्धीनां च संरक्षणं संयोजनं च सञ्चिकायां पत्रावल्यां वा करणीयम्। एतेन समग्रं मूल्याङ्कनं प्रमाणिकत्वेन भवितुं शक्नोति।	❖ सुलेखः ❖ तथ्यात्मकता ❖ प्रामाणिकता ❖ समयबद्धता

4.	**भाषा-संवर्धनाय गतिविधयः** **(क) श्रवण-भाषण-कौशलम्**	❖ कथा ❖ संवादः/ वार्तालापः ❖ भाषणम् ❖ नाटकम् ❖ वार्ताः ❖ आशुभाषणम् ❖ संस्कृतगीतानि ❖ श्लोकोच्चारणम् ❖ प्रहेलिकाः	05	❖ छात्राः कामपि कथां श्रावयितुं शक्नुवन्ति। ❖ शिक्षकः कमपि विषयं सूचयित्वा परस्परं संवादं कारयितुं शक्नोति। ❖ दूरदर्शने वार्तावली इत्याख्यः संस्कृत-कार्यक्रमः प्रसारितः भवति तं द्रष्टुं छात्राः प्रेरणीयाः। ❖ श्रवण-कौशल-मूल्याङ्कनाय शिक्षकः स्वयम् अपि कथां श्रावयित्वा ततः सम्बद्ध-प्रश्नान् प्रष्टुं शक्नोति।	❖ उच्चारणम् ❖ शुद्धता ❖ समयबद्धता ❖ प्रस्तुतीकरणम् (आरोहावरोह-गतियति-प्रयोगः)
	(ख) लेखनकौशलम्	❖ विविधविषयान् आधृत्य मौलिकलेखनम् यथा– देशः, माता, पिता, गुरुः, विद्या पर्यावरणम्, योगः, समयस्य सदुपयोगः, शिक्षा, अनुशासनम् इत्यादयः। ❖ शैक्षिकभ्रमणस्य संस्कृतेन प्रतिवेदनलेखनम्। ❖ दैनन्दिनीलेखनम्। ❖ सङ्केताधारितं कथालेखनम्। ❖ भित्तिपत्रिकायाः निर्माणम्। ❖ श्रुतलेखः। ❖ सूक्तिलेखनम्।		❖ छात्राः यथाशक्यं कक्षायामेव लेखनकार्यं कुर्युः। ❖ टिप्पणी- पुस्तिकायाः निर्माणम्। ❖ वैयक्तिकपरीक्षणम्।	❖ विषय-सम्बद्धता ❖ शुद्धता (विशेषतः पञ्चमवर्णस्यप्रयोगः) ❖ समयबद्धता ❖ सुलेखः ❖ प्रस्तुतीकरणम्
	अवधातव्यम् –उपर्युक्त-गतिविधयः उदाहरणरूपेण प्रदत्ताः सन्ति। एतदतिरिच्य एतादृशाः अन्यगतिविधयः अपि भवितुमर्हन्ति।				

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Social Science
Subject Code-087
Class - X (2026-27)

COURSE STRUCTURE

History (India and the Contemporary World-II)			**20 Marks inclusive of map pointing**
Section	**Chapter No.**	**Chapter name**	**Marks**
I Events and processes	I	The Rise of Nationalism in Europe	18+2 map pointing
	II	Nationalism in India	
II Livelihoods, Economies and Societies	III	The Making of a Global World (**To be evaluated in the Board Examination** Subtopics: 1 to 1.3 Pre Modern World to Conquest, disease and trade)	
		Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks) Subtopics 2 to 4.4 –The nineteenth century (1815-1914) to end of Bretton Woods & the beginning of "Globalisation"	
	IV	The Age of Industrialisation (**Tobe assessed as part of Periodic Assessment only**)	
III. Everyday Life, Culture and politics	V	Print Culture and the Modern world	
Geography (Contemporary India-II)			**Marks-20 inclusive map pointing**
Chapter No.	**Chapter Name**		**Marks**
1	Resources and Development		17+3 map pointing
2	Forest and Wildlife Resources		
3	Water resources		
4	Agriculture		
5	Minerals and energy Resources		
6	Manufacturing Industries		
7	Lifelines of National Economy (Only map pointing to be evaluated in the Board Examination)		

	Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks)		
Political Science (Democratic Politics-II)			**20**
Unit No.	**Chapter No.**	**Chapter name**	**Marks**
I	1	Power-sharing	20
	2	Federalism	
II	3	Gender, Religion and Caste	
III	4	Political Parties	
IV	5	Outcomes of Democracy	
Economics (Understanding Economic Development)			**20**
Chapter No.	**Chapter name**		**Marks**
1	Development		20
2	Sectors of the Indian Economy		
3	Money and Credit		
4	• Globalisation and the Indian Economy to be evaluated in the Board Examination • What is Globalisation? • Factors that have enabled Globalisation		
	• Interdisciplinary project as part of multiple assessment (Internally assessed for 5 marks) • Production across the countries • Chinese toys in India • World Trade Organisation • The Struggle for a Fair Globalisation		
5	Consumer Rights (Project Work)		

CLASS X (2026-27)
COURSE CONTENT

HISTORY: India and the Contemporary World - II

Chapter I -The Rise of Nationalism in Europe

Learning outcome- The students will be able to

- Infer how French Revolution had an impact on the European countries in the making of a nation state.
- Comprehend the nature of the diverse social movements of the time.
- Analyse and infer the evolution of the idea of nationalism which led to the formation of nation states in Europe and elsewhere.
- Evaluate the reasons which led to the First World War.

Chapter 2 Nationalism in India

Learning outcome- The students will be able to

- Illustrate various facets of Nationalistic movements that ushered in the sense of Collective Belonging.
- Evaluate the effectiveness of the strategies applied by Gandhiji and other leaders in the movements organised by him.
- Summarise the effects of the First World War that triggered the two defining movements (Khilafat &Non- Cooperation Movement) in India

Chapter 3-. The Making of a Global World

Subtopic 1. The pre-modern world
Subtopic 2. 19th century 1815 -1914
Subtopic 3. The inter- war economy
Subtopic 4. Rebuilding of world economy: the post war era.

Inter disciplinary Project with chapter 7 of Geography: Lifelines of National Economy and chapter 4 of Economics: Globalisation and the Indian Economy

Refer Annexure III B

Learning outcome- The students will be able to

- Summarise the changes that transformed the world in different areas.
- Depict the global interconnectedness from the Pre-modern to the present day.
- Enumerate the destructive impact of colonialism on the livelihoods of colonised people.

Chapter 4-The Age of Industrialisation

Learning outcome- The students will be able to

- Enumerate economic, political, social features of Pre and Post Industrialization.
- Analyse and infer how the industrialization impacted colonies with specific focus on India

Chapter 5. Print culture and the Modern World

Learning Outcome- The students will be able to

- Enumerate the development of Print from its beginnings in East Asia to its expansion in Europe and India.
- Compare and contrast the old tradition of handwritten manuscripts versus print technology.
- Summarise the role of Print revolution and its impact

Geography: Contemporary India – II

Chapter 1- Resources and Development

Learning Outcome- The students will be able to

- Enumerates how the resources are interdependent, justify how planning is essential in judicious utilisation of resources and the need to develop them in India.
- Infer the rationale for development of resources.
- Analyse and evaluate data and information related to non-optimal land, utilization in India
- Suggest remedial measures for optimal utilization of underutilized resources

Chapter 2- Forest and Wildlife Resources

Learning Outcome- The students will be able to

- Examine the importance of conserving forests and wildlife and their interdependency in maintaining the ecology for the sustainable development of India.
- Analyse the role of grazing and wood cutting in the development and degradation
- Summarise the reasons for conservation of biodiversity under sustainable development.
- Discuss how developmental works, grazing wood cutting have impacted the forests
- Use art integration to summarise and present the reasons for conservation of biodiversity in India under sustainable development.

Chapter 3-Water Resources

Learning Outcome- The students will be able to

- Examine the reasons for conservation of water resource in India.
- Analyse and infer how the multipurpose projects are supporting the requirement of water.

Chapter 4- Agriculture

Learning Outcome

- Examine the crucial role played by agriculture in our economy and society.
- Analyse the challenges faced by the farming community in India.
- Identifies various aspects of agriculture, including crop production, types of farming etc.

Chapter 5- Minerals and Energy Resources

Learning Outcome- The students will be able to

- Enumerate the impact of manufacturing industries on the environment and develop strategies for sustainable development of the manufacturing sector.
- Differentiate between various types of manufacturing industries based on their input materials, processes, and end products, and analyse their significance in the Indian economy.
- Analyse the relation between the availability of raw material and location of the industry

Chapter 6- Manufacturing Industries

Learning Outcome- The students will be able to

- Enumerates the impact of manufacturing industries on the environment and develop strategies for sustainable development of the sector.
- Differentiates between various types of manufacturing industries based on their input materials, processes, and end products, and analyse their significance in the Indian economy.

- Analyses the relation between the availability of raw material and location of the industry

Chapter 7- Life Lines of National Economy

Interdisciplinary project with chapter 3 of History: The making of a Global world and chapter 4 of Economics: Globalisation and the Indian Economy

Learning Outcome-Refer Annexure III-B

Political Science: Democratic Politics - II

Chapter 1- Power – sharing

Learning Outcome- The students will be able to

- Enumerate the need for power sharing in democracy.
- Analyse the challenges faced by countries like Belgium and Sri Lanka ensuring effective power sharing.
- Compare and contrast the power sharing of India with Sri Lanka and Belgium.
- Summarise the purpose of power sharing in preserving the unity and stability of a country

Chapter 2-Federalism

Learning Outcome- The students will be able to

- Infer how federalism is being practised in India.
- Analyse the policies and politics that has strengthened federalism in practice.

Chapter 3- Gender, Religion and Caste

Learning Outcome- The students will be able to

- Examine the role and differences of Gender, religion and Caste in practicing Democracy.
- Analyse that different expressions based on the differences, are healthy or otherwise in a democracy

Chapter 4- Political Parties

Learning Outcome- The students will be able to

- Understand the process of parties getting elected.
- Know the significance of the right to vote and exercise the duties as citizens of a nation.
- Examine the role, purpose and no. of Political Parties in Democracy.

Chapter 5- Outcomes of Democracy

Learning Outcome- The students will be able to

- Enumerates how the success of democracy depends on quality of government, economic well- being, inequality, social differences, conflict, freedom and dignity.

Economics: Understanding Economic Development

Chapter- 1. Development

Learning Outcome- The students will be able to

- Enumerate and examine the different processes involved in setting developmental Goals.
- Analyse and infer how the per capita income depicts the economic condition of the nation.
- Evaluate the development goals with reference to their efficacy, implemental strategies, relevance to current requirements of the nation.
- Compare the per capita income of some countries and infer reasons for the variance.
- Analyse the multiple perspectives on the need of development.

Chapter 2- Sectors of the Indian Economy

Learning Outcome- The students will be able to

- Analyse and infer how the economic activities in different sectors contribute to the overall growth and development of the Indian economy.
- Propose solutions to identified problems in different sectors based on their understanding.
- Summarise how the organised and unorganised sectors are providing employment
- Enumerate the role of the unorganised sector in impacting Per Capita Income currently and propose suggestive steps to reduce the unorganised sector for more productive contributions to GDP.
- Enumerate and infer the essential role of the Public and Private sectors

Chapter 3- Money and Credit

Learning Outcome- The students will be able to

- Enumerate how money plays as a medium exchange in all transactions of goods and services from ancient times to the present times.
- Analyse and infer various sources of Credit.
- Summarise the significance and role of self-help groups in the betterment of the economic condition of rural people/ women.

Chapter- 4. Globalisation and the Indian Economy

Subtopics: What is Globalisation?
Factors that have enabled Globalisation**.**

Interdisciplinary Project with chapter 3 of History: “The Making of a Global World” and chapter 7 of Geography: “Lifelines of National Economy”

Subtopics:

i. Production across the countries
ii. World Trade Organisation
iii. The Struggle for a Fair Globalisation

Refer Annexure III-B

Learning Outcome- The students will be able to

- Enumerate the concept of globalisation and its definition, evolution, and impact on the global economy.
- Evaluate the key role of the key major drivers of globalisation and their role in shaping the global economic landscape in various countries.
- Comprehend the significance of role of G20 and its significance in the light of India's role.

5. Project work - Consumer Rights **OR** Social Issues **OR** Sustainable Development

Learning Outcome- Refer Annexure III

CLASS X (2025-26)
MAP WORK

<table>
<tr><th>Subject</th><th>Name of the Chapter</th><th>List of areas to be located/ labeled/ identified on the map</th></tr>
<tr><td>History</td><td>Nationalism in India</td><td>I. Congress sessions:
• 1920 Calcutta
• 1920 Nagpur
• 1927 Madras session
II. 3 Satyagraha movements:
• Kheda
• Champaran
• Ahmedabad mill workers
III. Jallianwala Bagh
IV. Dandi March</td></tr>
<tr><td>Geography</td><td>Resources and Development</td><td>Identify Major Soil Types</td></tr>
<tr><td rowspan="3"></td><td>Water Resources</td><td>Locating and Labeling:
• Salal
• Bhakra Nangal
• Tehri
• Rana Pratap Sagar
❑ Sardar Sarovar
❑ Hirakund
❑ Nagarjun Sagar
❑ Tungabhadra</td></tr>
<tr><td>Agriculture</td><td>Identify:
• Major areas of Rice and Wheat
• Largest/Major producer states of Sugarcane, Tea, Coffee,
• Rubber, Cotton and Jute</td></tr>
<tr><td>Minerals and Energy Resources</td><td>Identify:
Iron Ore Mines
Mayurbhanj
Durg
Bailadila
Bellary
Kudremukh
Coal Mines
Raniganj
Bokaro
Talcher
Neyveli
Oil Fields
Digboi Naharkatia
Mumbai High
Bassien
Kalol
Ankaleshwar</td></tr>
</table>

<table>
<tr><td></td><td></td><td>Locate and label: Power Plants<table><tr><th>Thermal</th><th>Nuclear</th></tr><tr><td>• Namrup
• Singrauli
• Ramagundam</td><td>• Narora
• Kakrapara
• Tarapur
• Kalpakkam</td></tr></table></td></tr>
<tr><td></td><td>Manufacturing Industries</td><td>• Manufacturing Industries (Locating and labeling only)
• Cotton textile Industries: a. Mumbai, b. Indore, c. Surat, d. Kanpur, e. Coimbatore
• Iron and Steel Plants: a. Durgapur, b. Bokaro, c. Jamshedpur, d. Bhilai, e. Vijayanagar, f. Salem
• Software technology Parks: a. Noida, b. Gandhi- nagar, c. Mumbai, d. Pune, e. Hyderabad, f. Bengaluru, g. Chennai,h. Thiruvananthapuram</td></tr>
<tr><td></td><td>Lifelines of National Economy</td><td>Locating and Labeling
a. Major Sea Ports<table><tr><td>• Kandla
• Mumbai
• Marmagao
• New Mangalore
• Kochi</td><td>• Tuticorin
• Chennai
• Visakhapatnam
• Paradip
• Haldia</td></tr></table>b. International Airports
• Amritsar (Raja Sansi-Sri Guru Ram Das ji)
• Delhi (Indira Gandhi)
• Mumbai (Chhatrapati Shivaji)
• Chennai (Meenambakkam)
• Kolkata (Netaji Subhash Chandra Bose)
• Hyderabad (Rajiv Gandhi)</td></tr>
</table>

Note

1. Items of Locating and Labelling may also be given for Identification.
2. The Maps available in the website of Govt. of India may be used.

CLASS X
QUESTION PAPER DESIGN

Subject Wise Weightage

Subject	Syllabus	Marks (80)	Percentage
History	• The Rise of Nationalism in Europe. • Nationalism in India: • The Making of a Global World Sub topics 1 to 1.3 • Print Culture and the Modern World • Map pointing	18+2	25%
Political Science	• Power – sharing • Federalism • Gender, Religion and Caste • Political Parties • Outcomes of Democracy	20	25%
Geography	• Resources and Development • Forest and Wildlife Resources • Water Resources • Agriculture • Mineral& Energy resources • Manufacturing industries. • Lifelines of National Economy (map pointing) • Map pointing	17+3	25%
Economics	• Development • Sectors of the Indian Economy • Money and Credit • Globalisation and The Indian Economy Sub topics: ➢ What is Globalisation? ➢ Factors that have enabled Globalisation	20	25%

Weightage to Type of Questions

Type of Questions	Marks (80)	Percentage
1 Mark- MCQs (20x1) (Inclusive Of Assertion, Reason, Differentiation & Stem)	20	25%
2 Marks- Long Answer Questions (4x2) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	8	10%
3 Marks- Long Answer Questions (5x3) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	15	18.75%
4 Marks- Case Study Questions (3x4) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	12	15%
5 Mark- Long Answer Questions (4x5) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	20	25%
Map Pointing	5	6.25%

Weightage to Competency Levels

Sr. No.	Competencies	Marks (80)	Percentage
1	**Remembering and Understanding**: Exhibiting memory of previously learned material by recalling facts, terms, basic concepts, and answers; Demonstrating understanding of facts and ideas by organizing, translating, interpreting, giving descriptions and stating main ideas.	24	30%
2	**Applying**: Solving problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	11	13.25%
3	**Analysing, Evaluating and Creating**: Examining and breaking information into parts by identifying motives or causes; Making inferences and finding evidence to support generalizations; Presenting and defending opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compiling information together in a different way by combining elements in a new pattern or proposing alternative solutions.	40	50%
4	Map Skill	5	6.25%
	Total	**80**	**100%**

CLASS X (2026-27)

GUIDELINES FOR INTERNAL ASSESSMENT: 20 MARKS

Type of Assessment	Description	Marks
Periodic Assessment	Pen Paper Test.	**5**
Multiple Assessment	Quiz, debate, role play, viva, group discussion, visual expression, interactive bulletin boards, gallery walks, exit cards, concept maps, peer assessment, Self-assessment etc. through Interdisciplinary project	**5**
Subject Enrichment Activity	Project Work on Consumer Rights OR Social Issues OR Sustainable Development (Interdisciplinary)	**5**
Portfolio	Classwork, Work done (activities/ assignments) reflections, narrations, journals, etc. Achievements of the student in the subject throughout the year Participation of the student in different activities like heritage India quiz	**5**

CLASS X
PRESCRIBED TEXTBOOKS

S.No.	Subject	Name of the Book	Publisher
1	History	India and the Contemporary World-II	NCERT
2	Political Science	Democratic Politics-II	NCERT
3	Geography	Contemporary India-II	NCERT
4	Economics	Understanding Economic Development	NCERT
5	Disaster Management	Together, towards a safer India- Part III	CBSE

Interdisciplinary Project: Class X

Subject and Chapter No.	Name of the Chapter	Suggested Teaching Learning Process	Learning Outcomes with Specific Competencies	Time Schedule For Completion
History Chapter III Geography Chapter 7	Making of a Global World Lifelines of National Economy	The teachers may use the following pedagogies in facilitating the students in completion of Interdisciplinary Project. 1) Constructivism 2) Inquiry based learning 3) Cooperative learning 4) Learning station 5) Collaborative learning 6) Videos/ Visuals/ documentaries/ movie clippings 7) Carousel technique 8) Art integrated learning Group Discussions Multiple Assessment: Ex. Surveys/ Interviews/ Research work/ Observation/ Story based	➢ Analyse the implication of globalisation for local economies. ➢ Discuss how globalisation is experienced differently by different social groups. Enumerates how transportation works as a lifeline of the economy. ➢ Analyse and infer the impact of roadways and railways on the national economy. ➢ Analyses and infers the challenges faced by the roadways and railway sector in India	The schools do IDP between the months of April and September at the School under the guidance of a teacher. (Carryover of project to home must be strictly avoided)
Economics Chapter 4	Globalisation on and the Indian Economy	Presentation/ Art integration/ Quiz/ Debate/ role play/ viva, /group discussion, /visual expression/ interactive bulletin boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self - assessment/integration of technology etc.	➢ Integrate various dimensions of globalisation in terms of cultural / political/ social /economic aspects) ➢ Appraise the evolution of Globalisation and the global trends ➢ Investigate the factors that facilitated the growth on MNC ‘s	

Guidelines:

- It involves combining 2 or more disciplines into one activity-more coherent and integrated. The generally recognized disciplines are economics, History, Geography, Political Science, a sample plan has been enclosed) Kindly access the link given below

- Methodology (A sample interdisciplinary project plan Link has been provided to get an insight about IDP.
- Topic: The Making of a Global World, Globalisation and Lifelines of Economy

  https://docs.google.com/document/d/1dIwwFeaSrExJHMtkzcEuoq3ehh-7FtHM/edit

Plan of the project:
A suggestive 10 days' plan given below which you may follow, or you can create on your own, based on the templates provided below

Process:
Initial collaboration among students to arrange their roles, areas of integration, area of investigation and analysis, roles of students

Class X: 10-day Suggestive plan for Interdisciplinary Project
Day 1: Introduction to the Interdisciplinary Project and Setting the Context:
Brief overview of the project and its objectives to be given by the teachers. History teacher to Introduce the historical context of World War II and its aftermath through inquiry methods. Make the students to Group discuss the impact of World War II on the global economy. Teacher to refer annexure III for rubrics) **Day 2: The Great Depression:** Students to watch a video from the link, https://www.youtube.com/watch?v=62DxELjuRec and https://www.youtube.com/watch?v=gqx2E5qIV9s and discuss the causes and consequences of the Great Depression and the role of mass production and consumption in the Great Depression. Present a group PPT /report on consequences of the Great Depression on the global economy. **Day 3: India and the Great Depression:** Students to collect material related to India's economic condition during the Great Depression and relate it to the present economic condition of India and US. Students may collect information through a visit to the library. As a group activity they need to present a collage of their findings. (Refer Annexure V for Rubrics) **Day 4: Rebuilding the World Economy and Interlinking Production across countries** • Teachers to use Jigsaw method to make the students to sit in groups and to give each group a part of the handout with information about process taken to rebuild economy and how the production across countries got interlinked. Make the groups to compile the information by moving from group to group. • Make them discuss the post-war recovery efforts and their impact on the global economy • Study the role of the Bretton Woods Institutions in rebuilding the world economy and present their learnings through Art Integrated Project. Refer Annexure V for rubrics.

Day 5: The Early Post-War Years: The role of roadways, railways, waterways and airways in building the national economy

- The teacher distributes the Handout 1 given below to the groups and asks them to find answers to the questions posed at the end of Hand out and present it in groups using Café conversations mode. Refer Annexure III for rubrics.
- Study the challenges faced by the world in the early post-war years

Day 6: Post war settlement and Bretton Woods institutions

- Make the students read the material available online/in library and debate the impact of Bretton Woods institutions in the post war economy. Refer Annexure V for Rubrics.

Day 7: Decolonization and Independence - The Role of World Trade Organization:

- The students will read the handout 2 given below and present a role play of the support rendered by the World Trade Organisation in building new nations. Refer Annexure V for rubrics
- Introduction to the World Trade Organization
- Study the role of the WTO in promoting fair trade practices
- Discuss the efforts made towards decolonization and independence of nations

Day 8: End of Bretton Woods and the Beginning of Globalisation:

- The students will read material given in the link https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20Bretton% 20Woods%20system,-The%20system%20 dissolved&text=In% 20August% 201971 %2C%20U.S.%20Pr esident,the%20breakdown%20of%20the%20syste m.
- Organise an interview with a financial expert/economist/ lecturer/professor. Based on the information they gathered, the students can submit a report on the findings.
- Discuss the reasons for the end of the Bretton Woods system

Day 9: Impact of Globalization in India and role of waterways and airways https://www.jagranjosh.com/general-knowledge/new-economic-policy-of-1991-objectives-features-and-impacts-1448348633-1

- The students will read the material given in the above link and design a report on what would have happened to India if this stand wasn't taken and present it as a radio talk show. They will link the role of waterways and airways in the achievement of India in globalisation.
- Study the impact of globalisation on the Indian economy
- Discuss the challenges faced by India in the process of globalisation

Day 10. Final presentation

Conclude the interdisciplinary project and summarize the key takeaways.

Handout 1 for Day 4 of Inter Disciplinary Project of Class X

Title: The Role of Waterways and Airways in Post-World War II- World and India

Introduction: After the end of World War II, the world faced significant economic, social, and political changes. The role of waterways and airways in shaping the post-war world and India is crucial to understand. In this handout, we will discuss the impact of waterways and airways on the global economy and how it helped India in its development.

Waterways: In the post-World War II era, waterways played a crucial role in the movement of goods and people. The improvement of ports and waterways allowed for more efficient transportation of goods and helped to spur economic growth.

The increased demand for goods and services, combined with the development of shipping technologies, allowed for the expansion of international trade. This helped to boost the world economy and allowed for the growth of industries in many countries, including India.

In India, the development of waterways and ports helped to improve the country's economy. The country's long coastline and several rivers made it an ideal location for the transportation of goods. The growth of ports and waterways in India allowed for the movement of goods from one part of the country to another, helping to spur economic growth and development.

Airways: After World War II, the development of air transportation revolutionized the world's economy. The expansion of air travel allowed for faster and more efficient transportation of goods and people, which helped to boost the world economy.

In India, the growth of airways helped to connect different parts of the country and made it easier for people and goods to move from one place to another. This helped to spur economic growth and development in India.

The growth of air transportation in India also allowed for the expansion of international trade. Indian businesses could now easily access foreign markets, which helped to boost the country's economy.

Conclusion:

The role of waterways and airways in the post-World War II world and India was crucial in shaping the economic and social landscape of these countries. The development of these transportation modes helped to spur economic growth and allowed for the expansion of international trade. Understanding the impact of waterways and airways on the world and India is crucial in understanding the economic and social changes that took place after World War II.

Questions:

1. Mention the role of major ports in imports and exports.
2. Emergence of Deccan airways changed the entire functionalities of domestic airways. Substantiate the statement
3. The waterways and airways contribute to the economic growth of India. Substantiate your answer.

Handout 2 for day 7 of Inter Disciplinary Project of Class X

Title The Role of the World Trade Organization (WTO) in Building New Nations Post-Colonialization

Introduction: After the end of colonialism, many countries faced significant economic and political challenges as they worked to establish themselves as independent nations. The World Trade Organization (WTO) played a crucial role in helping these countries to rebuild their economies and participate in the global economy. In this handout, we will discuss the role of the WTO in building new nations post- colonialization.

What is the WTO?

The WTO is an international organization that was established in 1995 to promote international trade and help countries participate in the global economy.

The WTO provides a forum for countries to negotiate and enforce international trade agreements and helps to ensure that trade is conducted in a fair and predictable manner. The organization also provides technical assistance and advice to help countries improve their trade policies and participate in the global economy.

How has the WTO helped new nations post-colonialization?

After colonial rule ended, many countries faced significant economic challenges as they worked to establish themselves as independent nations. The WTO helped these countries to participate in the global economy by providing a forum for trade negotiations and by helping to enforce international trade agreements.

The WTO also provided technical assistance and advice to help these countries improve their trade policies and participate in the global economy. This helped to spur economic growth and development in these countries and allowed them to become more integrated into the global economy.

By participating in the global economy, new nations post-colonialisation was able to expand their markets, attract foreign investment, and improve their economic performance. The WTO played a crucial role in helping these countries to build their economies and establish themselves as stable, independent nations.

Conclusion:

The WTO played a crucial role in building new nations post-colonialization by helping these countries to participate in the global economy. The organization's trade negotiations, enforcement of international trade agreements, and technical assistance helped to spur economic growth and development in these countries. Understanding the role of the WTO in building new nations post-colonialization is important in understanding the economic and political changes that took place after the end of colonial rule.

ANNEXURE IV

Suggested Template for Presentation by the Students

Name of the Students (Team):	
Class :	**Section:**
Topics of Interdisciplinary Project:	
Title of the Project:	
Objectives:	
Multiple Assessment: Ex. Surveys / Interviews / Research work/ Observation/ Story based Presentation/ Art integration/ Quiz/ Debate/ role play/ viva, /Group discussion /visual expression/ interactive bulletin boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self-assessment/ integration of technology etc.	
Evidences: Photos, Excerpts from Interviews, observations, Videos, Research References, etc.	
Overall presentation: Link of PPT, shared documents, can be digital/handwritten, as per the convenience of the school.	
Acknowledgement:	
References **(websites, books, newspaper etc.)**	
Reflections:	

ANNEXURE V

Rubrics for Interdisciplinary Project

Rubrics	Marks allocated
Research Work	1
Collaboration & Communication	1
Presentation & Content relevance	1
Competencies- Creativity, Analytical skills, Evaluation, Synthesizing,	2
Total	**5**

Social Science
Subject Code-087
Class - IX (2026-27)

RATIONALE

The purpose of the education system is to develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical moorings and values. It aims at producing engaged, productive and contributing citizens for building an equitable, inclusive and plural society as envisaged by our Constitution. [NEP 2020, pages 4-5]

Social Science is a compulsory subject at Secondary Stage Phase-I of school education. Social Science can play a unique role within the school curriculum to enable Knowledge, Capacities, and Values and Dispositions that underpin the purpose of education as committed to in NEP 2020.

The teaching and learning of Social Science at the secondary stage is aligned with the transformational vision of the National Curriculum Framework for School Education (NCF-SE) 2023 and the National Education Policy (NEP) 2020. The NCF-SE 2023 emphasises learning, i.e., competency-based, inquiry-oriented, and rooted in Indian Knowledge Systems (IKS) and lived realities. The deliberate reduction of content load with a focus on core concepts rather than memorisation, creates space for discussion, exploration, and deep understanding. The framework's call for interdisciplinarity encourages students to draw meaningful connections across disciplines and relate classroom learning to real-life contexts and experiences.

Furthermore, the NCF-SE 2023 envisions rootedness in India, in which learning is grounded in India's diverse heritage and intellectual traditions, while also being combined with a global outlook. Within this perspective, Social Science education engages students with India's historical experiences, democratic values, and patterns of economic and social development, geographical understanding alongside global processes and contemporary challenges. By integrating the aims of the NEP 2020, Social Science education seeks to transform learning into a process that builds knowledge, capacities, and values essential for personal growth, social harmony and national progress.

Social Science at the secondary stage is an integrated study of human society like its evolution, structures, and dynamics through the disciplines of History, Geography, Political Science, and Economics. It explores how societies function and transform over time through the interplay of historical, geographical, cultural, political, economic, and environmental forces. The subject goes beyond the factual understanding to include inquiry, interpretation, and analysis.

Students learn to source and validate information, interpret data and evidence, and construct logical explanations, thus fostering critical and reflective thinking. It also cultivates empathy, respect for diversity, and a sense of justice and responsibility — values that reflect India's intellectual traditions of reasoning, dialogue, and debate as pathways to truth and understanding.

AIMS & OBJECTIVE

As per NCF- 2023, the aims of teaching Social Science in school education can be summarised as follows:

a. Develop disciplinary knowledge and understanding of how society functions through an interplay of historical, geographical, social, economic, and political factors.

   This can be enabled through:

   i. an understanding of continuity and change in human civilisation, its causation and effect and its impact on modern life.

   ii. an understanding of the interaction between nature and human beings, the spatial patterns arising out of this interaction and its effect on human life.

   iii. an awareness and understanding of the diversity of people and their practices in different societies, regions and cultures within societies.

   iv. an awareness of various social, political and economic institutions, their origin, functioning and transformations over time.

b. Develop an understanding and appreciation for the methods of enquiry relevant to Social Science and deepen students' skills to engage with the key questions and issues confronting society.

   These could be specifically seen as:

   i. Skills in sourcing evidence, interpreting them, checking through multiple sources and evidences and constructing a coherent narrative.

   ii. Skills in recognizing spatial patterns, map-reading, interpretation and analysis of various interconnected concepts and processes.

   iii. Skills of creative and analytical thinking to form informed opinions, demonstrate logical decision-making and incline towards a problem- solving attitude.

   iv. Skills to collect, organize, analyse, represent, and present data and information on various historical, geographical, and socio-political issues.

   v. Skills to question unsubstantiated ideas, biases, stereotypes, and assumptions to foster scientific temper and propose meaningful responses to contemporary concerns of society.

c. Foster ethical, human, and Constitutional values:

   As the NEP 2020 emphasises to foster a "democratic outlook and commitment to liberty and freedom; equality, justice, and fairness; embracing diversity, plurality, and inclusion; humaneness and fraternal spirit; social responsibility and the spirit of service; ethics of integrity and honesty; scientific temper and commitment to rational and public dialogue; peace; social action through Constitutional means; unity and integrity of the nation, and a true rootedness and pride in India with a forward-looking spirit to continuously improve as a nation.

   NOTE-*Refer to NCF-2023-Page no-320-323*

In alignment with the NEP 2020, Social Science education seeks to develop responsible human beings capable of rational thought and action, possessing compassion, empathy, courage, resilience, scientific temper, and creative imagination — qualities that prepare them to contribute meaningfully to the nation and humanity.

Studying Social Science is essential for developing informed, empathetic, and active citizens. It enables learners to situate themselves within broader social, cultural and environmental contexts, and to recognise their role in shaping them. Through this subject, students understand the origins of democratic values, Constitutional principles, and India's civilisational ethos of unity in diversity. They also develop awareness of pressing issues such as inequality, conflict, environmental degradation and economic challenges, and learn to respond to them with evidence-based reasoning and ethical reflection. Social Science thus, bridges knowledge and action, encouraging learners to think critically about society and participate responsibly and effectively in it.

CURRICULAR GOALS-CG

As per NCF 2023 - At the Secondary Stage, students will go into details to understand India's past and appreciate its complexity, diversity, and unity brought about by cultural integration and the sharing of knowledge traditions across geographical and linguistic boundaries. NCF 2023 Page no -154

- CG-1 Understands and analyses the important phases in Indian history and draws insights to understand present-day India
- CG -2 Analyses the important phases in world history and draw insight to understand the present-day world
- CG-3 Understands the idea of a nation and the emergence of the modern Indian Nation
- CG -4 Develops an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, cultural diversity, and biodiversity of the region
- CG -5 Understand the Indian Constitution and explores the essence of Indian democracy and the characteristics of a democratic government.
- CG -6 Understand and analyse social, cultural, and political life in India over time – as well as the underlying historical Indian ethos and philosophy of unity in diversity – and recognises challenges faced in these areas in the past and present and the efforts (being) made to address them
- CG -7 Develop an understanding of the inter-relationship between human beings and their physical environment and how that influences the livelihoods, cultural diversity, and biodiversity of the region
- CG -8 Evaluate the economic development of a country in terms of its impact on the lives of its people and nature
- CG-9 Understand and appreciate the contribution of India through history and present times, to the overall field of Social Science, and the disciplines that constitute it

COMPETENCIES

Competencies are specific learning achievements that are observable and can be assessed systematically. In NCF, Competencies are directly derived from a Curricular Goal and are

expected to be attained by the end of a Stage. The following competencies need to be developed in students to achieve the curricular goals at secondary stage.

- CG-1.1 Explains the historical events and processes using different types of sources with specific examples from Indian history
- CG-1.2 Explains and analyses the chronology of human life on the Indian subcontinent, from prehistory to its civilisational beginnings and beyond, and its relations with other civilisations over time, such as those in Mesopotamia, Greece, Central Asia, China, Southeast Asia, Arabia, and Eastern Africa
- CG-1.3 Traces aspects of continuity and change in different phases of history across the Indian subcontinent (including cultural trends, social and religious trends and reforms, and economic and political transformations)
- CG-1.4 Explains the growth of new indigenous ideas across India in Mathematics, Philosophy, Science and Technology, Medicine, Architecture, Agriculture, Literature and Art, and Social Science (such as zero and the Indian number system, *ahimsa*, the six systems of Indian philosophy, Ayurveda, yoga, the 22 *shrutis* of Indian music, horticulture, use of herbs and spices, etymology, meters, and grammar) and how they affected the course of the Indian history
- C-2.1 Explains historical events and processes with different types of sources with specific examples from India and world history.
- C-2.3 Traces aspects of continuity and change in different phases of world history (including cultural trends, social and religious reforms, and economic and political transformations)
- C-2.4 Explains the growth of new ideas and practices across the world (including humanism, mercantilism, industrialisation, scientific developments and explorations, imperialism, colonialism, the rise of the new nation states across the world, and various technologies including the most current) and how they affected the course of world history.
- C-2.5 Recognises the various practices that arose, such as those in C- 2.4, and came to be condemned later on (such as racism, slavery, colonial invasions, conquests, and plunder, genocides, exclusion of women from democratic and other institutions), all of which have also impacted the course of world history and have left unhealed wounds.
- C 3.1 Analyses the meaning of nation and how the concept evolved over time across the world and in the specific context of India, including its roots in the rich civilisational history of the Indian subcontinent
- C3.2 Identifies and analyses important phases of the Indian national freedom struggle against British colonial rule, with special reference to the movement led by Mahatma Gandhi and other important figures as well as those that led to independence, and

  understands the specific Indian concepts, values, and methods (such as Swaraj, Swadeshi, passive resistance, fight for dharma self- sacrifice, ahimsa) that played a part in achieving Independence.
- C-4.1 Locates physiographic regions of India and the climatic zones of the world on a globe/map.
- C-4.2 Explains important geographical concepts, characteristics of key landforms, their origin, and other physical factors of a region
- C-4.3 Draws inter- linkages between various components of the physical environment, such as climate and relief, climate and vegetation, vegetation, and wildlife.
- C-4.4 Analyses and evaluates the inter- relationship between the natural environment and human beings and their cultures across regions and, in the case of India, the special environmental ethos that resulted in practices of nature conservation

- C-4.5 Critically evaluates the impact of human interventions on the environment, including climate change, pollution, shortages of natural resources (particularly water), and loss of biodiversity; identifies practices that have led to these environmental crises and the measures that must be taken to reverse them.
- C-4.6 Develops sensitivity towards the judicious use of natural resources (by individuals, societies, and nations) and suggests measures for their conservation
- C-5.1 Understands that the Indian Constitution draws from the great cultural heritage and common aspirations of the Indian nation, and recalls India's early experiments with democracy (assemblies in *Mahajanapadas*, kingdoms and empires at several levels of the society, guilds *sanghas* and *ganas*, village councils and committees, *Uthiramerur* inscriptions)
- C-5.2 Appreciates fundamental Constitutional values and identify their significance for the prosperity of the Indian nation.
- C-5.3 Explains that fundamental rights are the most basic human rights, and they flourish when people also perform their fundamental duties
- C-5.4 Analyses the basic features of a democracy and democratic government – and its history in India and across the world – and compares this form of government with other forms of government.
- C-5.5- Analyses the critical role of non-state and non-market participants in the functioning of a democratic government and society, such as the media, civil society, socio-religious institutions, and community institutions
- C-6.1 Understands how the Indian ethos and the cultural integration across India did not attempt uniformity, but respected and promoted a rich diversity in Indian society, and how this harmonisation and unity in diversity, with a historical respect for all cultures, women have counted among India's great strengths by promoting peaceful coexistence
- C-6.2 Understands that despite C-6.1, forms of inequality, injustice, and discrimination have occurred in different sections of society at different times (due to internal as well as outside forces such as colonisation), leading to political, social, and cultural efforts, struggles, movements, and mechanisms at various levels towards equity, inclusion, justice, and harmony, with varying outcomes and degrees of success.
- C 6.3 Analyses aspects of differential treatment or discrimination that may exist in the Indian society, based on, socio-cultural background, region, language spoken, and what individuals and societies can do to eradicate such differential treatment
- C 6.4 Understands that a progressive society and nation, such as India is one that recognises not only its civilisational strengths but also its socio-economic, cultural and political challenges, and continuously makes efforts to address those challenges to become ever more prosperous, inclusive, just, and harmonious
- C-7.1 Defines key features of the economy, such as, production, distribution, demand, supply, trade, and commerce, and factors that influence these aspects (including technology)
- C-7.2 Evaluates the importance of the three sectors of production (primary, secondary, and tertiary) in any country's economy, especially India
- C-7.3 Distinguishes between 'unorganised' and 'organised' sectors of the economy and their role in production for the local market in small, medium, and large-scale production centres (industries), and recognises the special importance of the so-called 'unorganised' sector in

Indian economy and its connections with the self-organising features of Indian society

- C-7.4 Traces the beginning and importance of large- scale trade and commerce (including e- commerce) between one country and another - the key items of trade in the beginning, and the changes from time to time.
- C-8.1 Gathers, comprehends and analyses data related to income, capital, poverty, and employment in one's locality, region and at the national level. Markets.
- C- 8.2 Understands and analyses the concepts and practices of the range of economic systems — from free market to entirely state-controlled markets.
- C-8.3 Understands these features in the context of ancient India, with its thriving trade, both internal and external, and its well- established trade practices and networks, business conventions, and diverse industries, all of which made India one of the world's leading economies up to the colonial period
- C-8.4 Describes India's recent path towards again becoming one of the three largest economies of the world, and how individuals can contribute to this economic progress.
- C-8.5 Appreciates the connections between economic development and the environment, and the broader indicators of societal wellbeing beyond GDP growth and income.
- C – 9.1 Knows and explains the significant contributions of India to all matters (concepts, explanations, methods) studied within the curriculum, in an integrated manner

Pedagogy for teaching geography should integrate experiential, visual, and analytical approaches to make learning more meaningful and connected to the real world. Effective geography teaching goes beyond textbooks- it involves helping students observe, analyse, and interpret the Earth's surface and human-environment relationships. The use of three-dimensional models enables students to visualise complex geographical processes, such as mountain formation, river systems, and soil profiles, thus making abstract concepts tangible. Field observation is an essential pedagogical tool that promotes experiential learning; by directly engaging with local landscapes, students develop geographical inquiry skills, observation techniques, and data collection abilities. Incorporating Bhuvan images, India's indigenous satellite imagery and mapping platform allow learners to explore their own regions using real-time geospatial data and satellite views, linking classroom knowledge to local realities. Map reading is another fundamental component, as it cultivates spatial awareness, orientation, and the ability to interpret symbols, scales, and coordinates. Likewise, photo interpretation — analysing aerial and satellite photographs — helps students understand the land-use patterns, vegetation cover, urbanisation, and environmental changes. When combined, these methods foster critical thinking, spatial reasoning, and a deeper appreciation of the dynamic Earth systems that geography seeks to explain.

For understanding the past and India's rich heritage, teachers are expected to engage students in the following ways. Firstly, they are expected to analyse inscriptions or edicts (for example, Ashoka's edicts, and Gupta records) to understand how rulers communicated policies, messages, and ethical guidelines to their subjects. Secondly, they are to encourage students to read excerpts or chapters from Indian literary sources that throw light on the social, cultural, and political life of people. Thirdly, they are expected to conduct research and present examples of forts, temples, mosques, and palaces to illustrate cultural, architectural, and political developments in the Indian history. Finally, the teachers should explore and discuss the works of artists and philosophers of the Renaissance period, highlighting their contributions and influence.

Students should be made to locate the extent of various important empires on a world map. They are also expected to investigate and explain the key Indian ideas that shaped the thinking of Western philosophers, scientists, and artists. Finally, students should be encouraged to use a world map to trace India's trade and cultural exchanges with other civilisations, and analyse their patterns and impact.

Transaction of political concepts requires connecting students with evidence, inquiry, and real-world reasoning. Document-based inquiry helps learners explore authentic sources, such as Vedic texts, constitutional excerpts, and letters from national leaders to interpret historical contexts and moral reasoning. Case-based pedagogy, using landmark judgments, maps, and data analysis, builds decision-making and analytical skills, encouraging students to apply theory to practice. Evidence-based learning engages learners with real datasets from Census, NITI Aayog, or UNDP reports to develop data literacy and link concepts like equality and representation with measurable realities. Further, multimedia and experiential approaches use podcasts, documentaries, and archival materials to connect abstract political ideas with real experiences, sharpening students' interpretive and critical listening skills. Visual and graphic organiser-based pedagogy-through charts, tables, and concept maps — supports comprehension, memory, and summarisation by converting complex ideas into structured visuals. Together, these pedagogies transform classrooms into laboratories of civic thinking, empathy, and inquiry. They nurture students as reflective citizens who can interpret evidence, question assumptions, and engage meaningfully with India's democratic processes.

The pedagogy for teaching Economics needs to be interactive, experiential, and inquiry-driven, enabling students to relate economic concepts to real-life situations. Teachers can use role-play activities — such as running a lemonade stall or simulating the circular flow of income with students acting as households, firms, banks, and the government to make ideas like production, income, and expenditure tangible. Class discussions on familiar issues, such as rising vegetable prices during monsoons, help students link classroom learning with everyday experiences and develop critical thinking. Engaging classroom activities and games, like preparing a classroom budget, allow students to understand scarcity, choice, and opportunity cost in a fun and participatory way. The use of visual tools — including maps, pie charts, and graphs — can help students analyse data on GDP, trade, and sectoral trends. The case studies on topics like pollution as an externality, public goods like street lights, or successful entrepreneurs encourage application and deeper reflection. Surveys and field visits to local shopkeepers or MSMEs further bridge theory and practice by exposing students to real market dynamics. Incorporating current resources, such as newspaper articles or the Union Budget fosters analytical skills and awareness of contemporary economic issues. Through this diverse, hands-on approach, learners will move beyond memorisation to active understanding, making Economics relevant, engaging, and empowering

COURSE OUTLINE

Class IX-2026-27			
Part 1			
S. No.	**Theme (time allocation in instructional hours)**	**Outline/Concepts**	**Learning Outcomes and Competencies Students will be able to:**
1.	Understanding Social Science (4 Hours)	• Meaning, scope and relevance of Social Science • Understanding Social Science from an Indian perspective	• Explain the relevance of studying Social Science to understand society, environment, economy, and governance in our lives. • Explain the meaning and scope of Geography, History, Political Science, and Economics as disciplines and recognise their interconnections. • Appreciate diversity, inclusivity, sustainability, and equity as guiding values when studying society and making decisions.
2.	Shaping of the Earth's Surface (8 Hours)	• Theory of plate tectonics • Interior of the Earth • Role of weathering and erosion; agents of gradation — river, waves and currents, wind, glaciers, and underground water • Landforms and disasters: earthquakes, landslides, avalanches, Glacial Lake Outburst Flood (GLOF) and duststroms	C4.2 • Describe the concept of plate tectonics and analyse its relevance in understanding Earth's dynamics. • Locate major tectonic plates on a world map. • Explain processes of weathering and erosion with suitable examples. • Identify the prominent agents of gradation operating in a given region. • Describe major landforms and explain the processes involved in their formation. • Explain the causes of natural disasters and propose strategies for their mitigation.
3.	Atmosphere and Climate (7 Hours)	• Structure and composition; elements of weather and climate • Seasons of India and monsoons • Climate change • Floods Carbon footprint	C4.3, C4.4, C4.5 • Explain the different atmospheric layers and represent them using sketches and diagrams. • Observe and analyse local winds and their impact. • Understand the impact of the Indian monsoon on life, agriculture, and livelihoods across different regions.

			• Explain the causes and effects of climate change. • Represent climatic data (temperature, rainfall, etc.) through appropriate graphs, charts, or diagrams. • Analyse how climate change influences the frequency and intensity of natural disasters.
4.	Early Humans and Beginning of Civilisation (9 Hours)	• Cultural development from 2 million years ago • Early human history, periodisation: Archaeological ages • Who are human ancestors? • Palaeolithic hunter-gatherers and use of stone tools	C1.2, C2.1, C2.2, C2.3 • Describe how prehistoric time divisions are organised. • Explain how humans lived before the invention of writing • Understand the beginning of the settled life with development of agriculture, and domestication of plants and animals. • Explore the factors of urban development and transformation through time.
		• Mesolithic transition to food production: Mesolithic sites and tools • Neolithic and the beginning of farming: Neolithic revolution domestication of plants and animals • Harappan and contemporary cultures • Mesopotamian, egyptian, and chinese civilisation	• Appreciate the diversity of crafts and trade, and their role the establishment of prosperous economy. • Understand the diversity of food habits. • Describe the social, political, and religious structures of the civilisations of Egypt and Mesopotamia.
5.	State and Society (upto 1000 CE) (9 Hours)	• Vedic Age — geography; texts; rituals; political institutions, and social order • Administrative structure of early empires • Quest for knowledge — educational heritage, institutions, knowledge traditions, and cultural practices	C1.3, C2.3, C3.1, C1.4 • Explain various facets of Vedic society and polity. • Appreciate the achievements of Indian empires and their cultural legacy. • Understand the knowledge traditions and practices of India. • Understand the foundations of the Indian social and political institutions and their continuity.

		• Traders and trade routes, guilds and merchants, crafts and industries	
6.	Democracy (9 Hours)	• Meaning features and types of democracy • Roots of democracy in India • Challenges to democracy in India • Democratic systems in the world	C5.1, C5.2 • Understand the features of democracy. • Appreciate early democratic traditions in India and how they influenced modern democracy. • Differentiate between parliamentary and presidential systems. • Identify examples of both systems across countries, such as India, USA, France, Russia, and Canada.
7.	Elections (9 Hours)	• Factors of importance of elections • Electoral systems • Delimitation Commission • Election Commission of India and its role • Constituency, electoral rolls, enumerators • Party system in India	C5.2, C5.3, C5.4, C5.5, C6.2, C6.3, C6.4, C9.1 • Identify factors highlighting importance of elections in a democracy. • Categorise three types of electoral systems and list examples. • Identify the major laws that govern the conduct of elections in India. • Describe the main provisions of the Representation of the People Acts. • Define the concept of delimitation and its purpose in the Indian electoral system. • Identify the role and functions Election Commission of India (ECI) in the electoral process. • Explain constituency, electoral roll, enumerator. • Understand the party system in India. • Explain the meaning and features of a coalition government in the Indian political system. Explain key provisions of the Anti-Defection Law with reference to political instability and the need for anti-defection measures.
8.	Building Blocks in Economics (7 Hours)	• Scarcity of resources, opportunity cost and the need for making choice. What do economists do?	C8.2 • Explain the meaning of scarcity, choice, and opportunity cost in everyday life, and economic decision-making. • Describe what economists do and how they study production, distribution, and consumption of goods and services.

		• What to produce, how to produce, and for whom to produce? • Difference between market, centrally planned, and mixed economic systems • Welfare economy	• Recognise how economic analysis helps in policy-making and solving real-world issues. • Describe the three central problems of an economy — what to produce, how to produce, and for whom to produce. • Identify and differentiate the characteristics of planned, free market, and mixed economic systems. • Explain the concept of a welfare economy and the importance of social safety nets.
9.	The Price Puzzle: What Drives the Market (8 Hours)	• Laws of demand and supply • Real-world deviations from textbook theory, such as in case of necessities, luxury goods, perishable items, and expectations • Some related concepts — price ceilings and market failures (externalities, information asymmetry, public goods)	C7.1 • Explain the Law of Demand and Law of Supply with the help of real life examples. • Interpret how changes in price affect the quantity demanded and quantity supplied of goods and services. • Identify the equilibrium price and quantity where demand and supply intersect. • Analyse how changes in market conditions (e.g., increase in demand or supply) lead to surplus or shortage and affect equilibrium. • Explain the concept of price ceilings and how they can lead to shortages or black markets. • Understand market failures and identify their main types. • Understand public goods (non- excludable and non-rival goods like parks or street lighting).

Part 2

S. No.	Theme (time allocation instructional hours)	Outline/Concepts	Learning Outcomes (pertinent) CGs, Cs Students will be able to:
1.	Oceans and Life (7 Hours)	• Introduction to ocean relief, movement of ocean water- waves, tides and currents • Marine resources and their significance; open seas, navigation fishing, and livelihood concerns and challenges • Cyclones and	C4.1, C4.2 • Explain the movement of ocean waters, including waves, tides, and currents. • Analyse the connections between ocean currents, and global and regional climate patterns. • Understand the importance of marine resources for human livelihoods and ecosystems. • Examine the relationship between oceans, climate, livelihoods, and natural disasters. • Highlight key rules, conventions, and

		Tsunamis — early warning systems • International maritime rules and regulations	international agreements governing ocean navigation. and the use of marine resources. • Explain the need for international cooperation and agreements in the sustainable use of ocean resources. • Construct models or sketches representing ocean relief.
2.	Life on Earth (7 Hours)	• Biomes: Distribution and characteristics; biosphere reserves in India • Forest and ecotourism; forest dwellers, their livelihoods, and challenges • Forest and wildlife conservation • Government efforts to support forest dwellers	C4.3, C4.4, C4.5, C4.6 • Identify the major biomes of the world and describe their key climatic conditions, characteristic flora, and fauna. • Locate biosphere reserves on the map of India. • Appreciate local traditional practices related to biodiversity conservation and analyse their effects. • Explain the concept and importance of biosphere reserves in conserving ecosystems and biodiversity. • Analyse the concept of ecotourism and discuss its role in promoting sustainable forest ecosystem and conservation. • Investigate the causes of forest fires in the local area, and prepare a plan for mitigation and prevention.
3.	Resistance and Resilience (1000 CE – 1700 CE) (9 Hours)	• Safeguarding sovereignty: resistance, alliances and confederacies • Development of art and architecture, languages and literature • The Bhakti tradition • Forts and fortifications • Expansion of Indian economy and state	C1.3, C1.4, C3.1 • Explain the cultural, political, and military contributions of regional kingdoms in India. • Appreciate how diverse communities and regions shaped India's history from 1000 CE to 1700 CE. • Explore how regional kingdoms adapted to changing political, economic, and cultural contexts over time. • Analyse the continuity of the civilisational history of India as a nation upto 18th century CE.
4.	India and the World-I (1900 BCE-1200 CE) (8 Hours)	• Trade and commerce — trade with Mesopotamia, Greece, Roman Empire, China and Southeast Asia • Cultural Connections — Interactions with Greece and Rome, Central Asia, China, and Influence on South East Asia	C1.2, C1.4, C6.1, C2.3, C9.1 • Explore India's relations with early civilisations of the world. • Identify the major articles of trade and the major trading ports. • Appreciate the significant contributions of India in diverse spheres in an integrated manner. • Appreciate the influence of Indian religion and culture, particularly in Southeast Asia.

		• Indian Knowledge Systems — Medicine, Mathematics and Astronomy, Medicine, Religion	
5.	Authority (10 Hours)	• The Roots of Authority: in Kautilya and *shukraniti- danda* and relationship with *nyaya* and *bala*; the types of *nyaya* and *bala* • Constitutional status of justice and security since ancient times • Links the role of citizens with the elections and the democratic institutions • Types of authority — functional, sensitive, and welfare-oriented	C5.1, C5.2, C 5.3 • Explain the roots of authority in Indian political thought. • Interpret the relationship between *Danda* (discipline/ force) and *Nyaya* (justice) as the twin foundations of authority, development, and security. • Trace the evolution of authority structures in India. • Understand the post- independence concept of justice and security. • Illustrate types of authority. • Develop an understanding of citizen discipline, justice, and strength. • Illustrate the role of citizens in authority.
6.	From Ideas to Startups (8 Hours)	• What is entrepreneurship and explain the resources required to start a business • Case studies of successful entrepreneurs • Creative destruction with examples • Start-up ecosystem in India. • Make in India initiative, role of MSMEs and the unorganised sector in India's economic growth. • Stages of starting and executing a business idea through a business plan • Some basic accounting concepts	C7.3 • Define entrepreneurship and explain its importance in innovation, job creation, and economic growth. • Understand the key resources for business. • Explain how resources are managed to produce goods and services. • Analyse real-world examples of successful entrepreneurs. • Describe the features of India's start-up ecosystem and initiatives like Make in India, Startup India, and Digital India. • Recognise the role of Micro, Small, and Medium Enterprises (MSMEs) and the unorganised sector in promoting employment, innovation, and inclusive growth. • Identify and explain the stages of starting a business from developing an idea to creating and executing a business plan. • Understand simple profit and loss. Identify the key components of a balance.

7.	Smart Ways to Manage Your Finances (6 Hours)	• Relevance of personal financial management in daily life • Inflation and its impact on purchasing power • Simple vs. compound interest rate • Budgeting • Various savings and investment options like fixed deposit, stocks, bonds, mutual funds, etc. • Risk and insurance • Personal income tax	CG8 • Explain what personal financial management means and why it is essential in everyday life. • Recognise how managing income, spending, saving, and investment helps achieve financial stability and long-term goals. • Explain the difference between simple interest and compound interest. • Prepare a simple personal or family budget showing income, expenditure, and savings. • Identify various savings and investment instruments. • Understand the relationship between risk and return in different investment types. • Understand the concept of income tax and why citizens are required to pay it.

Note-Course Structure will be provided shortly

CLASS IX (2025-26)
INTERNAL ASSESSMENT: 20 MARKS

Type of Assessment	Description	Marks
Periodic Assessment	Pen Paper Test	5
Multiple Assessment	Quiz, debate, role play, viva-voce, group discussion, visual expression, interactive bulletin boards, gallery walks, exit cards, concept maps, peer assessment, self- assessment etc. through interdisciplinary project , Report Writing on field visits, Commentaries/visual interpretations, site-map making	5
Subject Enrichment Activity	Project work (Interdisciplinary)	5
Portfolio	Classroom, work done (activities/assignments) reflections, narrations, journals etc. Achievements of the student in the subject throughout the year. Participation of the student in different activities like Heritage India quiz etc.	5

CLASS IX
PRESCRIBED TEXT BOOKS

S. No.	Name of the Book	Publisher
1	Social Science-Part 1	NCERT
2	Social Science-Part 2	NCERT

Mathematics

Class IX (2026 – 27)

Introduction:

The Mathematics curriculum for the Secondary stage has been redesigned in alignment with the National Education Policy 2020 and the National Curriculum Framework for School Education (NCF – SE) 2023, prioritizing deep conceptual understanding and logical reasoning. The revised syllabus places strong emphasis on developing core mathematical competencies, including problem-solving, visualisation, mathematical modelling, mathematical communication, computational thinking, and data analytics. The syllabus integrate Indian Knowledge System with contemporary mathematical knowledge, highlighting the rich contributions of Indian mathematicians to foster a sense of pride and historical context. A deliberate shift from rote learning to competency-based education ensures that students build deep conceptual understanding and logical reasoning rather than mere procedural fluency. Greater emphasis has been laid on the integration of real-life applications and experiential learning, encouraging students to connect mathematical concepts with everyday situations and cross-disciplinary contexts. Greater emphasis has been laid on competency based learning outcomes encouraging students to connect mathematical concepts with everyday situations and inter-disciplinary contexts. Continuous and holistic assessment through projects, activities, and investigations forms an integral part of the learning process, moving beyond summative examinations.

At the secondary stage, the curriculum focuses on developing essential global mathematical competencies, including mathematical representation through quantities and relations, mathematical modelling and algorithm building, and effective mathematical communication. The study of the number system, algebra, geometry, mensuration, statistics and probability is designed to build a strong foundation for higher education while enhancing functional life skills. The curriculum thus aims to build rich mathematical learning frameworks not only for higher academic pursuits but also for the practical demands of life in a rapidly changing, data-driven world.

Objectives: The broad objectives of teaching Mathematics at the secondary stage are to help the learners to:

- develop logical thinking, critical reasoning, and a structured approach to problem-solving;
- build the ability to recognise, analyse, and solve diverse problems with confidence and adaptability;
- communicate mathematical ideas effectively using appropriate language, symbols, and representations;
- appreciate the beauty, history, and real-life relevance of Mathematics as a discipline;
- connect mathematical concepts to fields such as Science, Technology, Engineering, and Economics;
- engage in both collaborative and independent mathematical exploration and learning;
- develop habits of precision, accuracy, and logical consistency in mathematical work;
- build confidence to explore, experiment, and grow in mathematical understanding without fear of failure.

Curricular Goals (CGs) and Competencies (Cs) from the NCF-SE 2023

CG-1: Understands numbers (natural, whole, integer, rational, irrational, and real), ways of representing numbers, relationships amongst numbers, and number sets.

C-1.1 Develops understanding of numbers, including the set of real numbers and its properties.

CG-2: Builds deductive and inductive logic to prove theorems related to numbers and their relationships (such as '2 is an irrational number', a recursion relation for *Virahanka* numbers, a formula for the sum of the first *n* square numbers).

C-2.1 Understanding of powers (radical powers) and exponents.

CG-3: Discovers and proves algebraic identities and models real-life situations in the form of equations to solve them.

C-3.1 States and proves remainder theorem, factor theorem, and division algorithm.

C-3.2 Models and solves contextualised problems using equations (for example, simultaneous linear equations in two variables or single polynomial equations), and draws conclusions about a situation being modelled.

C-3.3 Learns Brahmagupta's quadratic formula (in both symbolic and poetic form) and its derivation, and uses it to solve some of the poetic puzzles of Bhaskara as well as modern-day problems.

CG-4: Analyses characteristics and properties of two-dimensional geometric shapes, and develops mathematical arguments to explain geometric relationships.

C-4.1 Describes relationships including congruence of two-dimensional geometric shapes (such as lines, angles, triangles) to make and test conjectures and solve problems.

C-4.2 Proves theorems using Euclid's axioms and postulates for triangles and quadrilaterals, and applies them to solve geometric problems.

C-4.3 Proves theorems about the geometry of a circle, including its chords, subtended angles, inscribed polygons, and area in terms of pi.

C-4.4 Understands the irrationality of pi, the best approximations to be discovered over human history, and the first exact formula (infinite series) for pi given by Madhava.

C-4.5 Specifies locations and describes spatial relationships using coordinate geometry, for example, plotting a pair of linear equations and graphically finding the solution, or finding the area of triangle with given coordinates as vertices.

C-4.6 Understands the definitions of the basic trigonometric functions, their history and motivation (including the introduction of the sin and cos functions by Aryabhata using chords), and their utility across the sciences.

CG-5: Derives and uses formulae to calculate areas of plane figures, surface area, and volumes of solid objects.

C-5.1 Visualises, represents, and calculates the area of a triangle using Heron's formula and its generalisation to cyclic quadrilaterals given by Brahmagupta's formula.

C-5.2 Visualises and uses mathematical thinking to discover formulae to calculate surface areas and volumes of solid objects (cubes, cuboids, spheres, hemispheres, right circular cylinders or cones, and their combinations).

CG-6: Analyses and interprets data using statistical concepts (such as measures of central tendency, standard deviations) and probability.

C-6.1 Applies measures of central tendencies, such as mean, median, and mode.

C-6.2 Applies concepts from probability to solve problems on the likelihood of everyday events.

CG-7: Begins to perceive and appreciate the axiomatic and deductive structure of Mathematics.

C-7.1 Proves mathematical statements and carries out geometric constructions using stated assumptions, axioms, postulates, definitions, and mathematics vocabulary.

C-7.2 Visualises and appreciates geometric proofs for algebraic identities and other 'proofs without words'.

C-7.3 Proves theorems using Euclid's axioms and postulates for angles, triangles, quadrilaterals, circles, area-related theorems for triangles, and parallelograms.

C-7.4 Constructs different geometrical shapes like bisectors of line segments, angles and their bisectors, triangles, and other polygons, satisfying given constraints.

CG-8: Builds skills, such as visualisation, optimisation, representation, and mathematical modelling along with their application in daily life.

C-8.1 Models daily-life phenomena and uses representations, such as graphs, tables, and equations to draw conclusions.

C-8.2 Uses two-dimensional representations of three-dimensional objects to visualise and solve problems, such as those involving surface area and volume.

C-8.3 Employs optimisation strategies to maximise desired quantities (such as area, volume, or other output) under given constraints.

CG-9: Develops computational thinking, i.e., deals with complex problems and is able to break them down into a series of simple problems that can then be solved by suitable procedures/algorithms.

C-9.1 Decomposes a problem into sub-problems.

C-9.2 Describes and analyses a sequence of instructions being followed.

C-9.3 Analyses similarities and differences among problems to make one solution or procedure work for multiple problems.

C-9.4 Engages in algorithmic problem-solving to design such solutions.

CG-10: Knows and appreciates important contributions of mathematicians from India and around the world.

C-10.1 Recognises the important contributions made by mathematicians (Indian and others) in the field of Mathematics (such as the evolution of numbers, geometry, and algebra).

C-10.2 Recognises modern contributions to Mathematics made in both India and abroad, and understands the next frontiers and next major open questions in the field of Mathematics.

CG-11: Explores connections of Mathematics with other subjects.

C-11.1 Applies mathematical knowledge and tools to analyse problems or situations in multiple subjects across Science, Social Science, Visual Arts, Music, Vocational Education, and Sports.

COURSE STRUCTURE CLASS – IX

Units	Unit Name	Chapter Name	Marks
I	Number System	• Number System	07
II	Algebra	• Introduction to Polynomials • Sequences and Progressions • Exploring Algebraic Identities • Linear Equations in Two Variables	20
III	Coordinate Geometry	• Coordinate Geometry	04
IV	Geometry	• Introduction to Euclid's Geometry: Axioms and Postulates • Lines and Angles • Triangles – Congruence Theorems • 4-gons (Quadrilaterals) • Circles	25
V	Mensuration	• Area and Perimeter • Surface Area and Volume	14
VI	Statistics and Probability	• Statistics • Introduction to Probability	10
	Total		**80**

Chapter Name	Key Concepts	Relevant CGs	Competencies
	Unit 1: Number System		**No. of periods : 12**
Number System	• Introduction to rational numbers • Representation of rational numbers on the number line • Density of rational numbers and its proof • Finding rational numbers between any two rational numbers • Decimal representation of rational numbers • Introduction to irrational numbers • Proof of irrationality of $\sqrt{2}$ and $\sqrt{3}$ • The square root spiral	CG-1, C-1.1, CG-9	The student will be able to: • Understand the concept of a rational number. • Represent rational numbers on the number line. • Understand the properties of rational numbers. • Explain the concept of density of rational numbers. • Compute decimal representation of rational numbers. • Understand the concept of irrational numbers. • Prove the irrationality. • Construct the square root spiral. • Apply computational thinking to represent rational and irrational

			numbers through algorithms and visual models, generate decimal expansions systematically, and reason about numbers using step-by-step logical procedures.
	UNIT II: ALGEBRA		**No. of periods : 66**
Introduction to Polynomials	• Algebraic expressions • Definition of a polynomial. • Degree of a polynomial • Introduction to linear polynomials and applications • Exploring linear patterns • Modelling linear growth and linear decay • Linear relationships • Visualising linear relationships • Slope and y-intercept of a line y = ax + b	CG-3, C-3.2, CG-9	The student will be able to: • Understand the meaning of an algebraic expression. • Define a polynomial. • Identify the degree, terms and coefficients of terms in a polynomial. • Model linear growth and decay using linear polynomials. • Explain and identify patterns in linear relationships. • Identify the slope and y-intercept of a linear equation in two variables. • Graph a linear equation in two variables. • Use computational thinking to identify patterns, construct linear expressions, and systematically represent and analyse linear relationships using equations and graphs.
Sequences and Progressions	• Introduction to sequences • Explicit or general rule of a sequence • Recursive rule of a sequence • Arithmetic Progressions • (AP): nth term, visualising an AP, and practical contexts leading to Aps • Sum of the first n natural numbers • Geometric Progressions (GP): nth term, visualising a GP, and practical contexts leading to GPs • Applications of GP in fractals • Tower of Hanoi puzzle	CG-11, C-8.1, CG-9	The student will be able to: • Understand the concept of a sequence of numbers. • Identify the pattern in a sequence and predict the next few terms. • Determine the recursive and explicit rules for different sequences. • Obtain the terms of sequence given its recursive and explicit rule. • Identify Arithmetic Progressions (AP). • Determine the nth term of an AP. • Visualise an AP graphically. • Identify Geometric Progressions (GP). • Determine the nth term of a GP. • Visualise a GP graphically. • Analyse attributes of fractals using GP. • Solve the Tower of Hanoi puzzle. • Use computational thinking to identify patterns, write step-by-step rules, and model patterns in sequences and progressions.

Exploring Algebraic Identities	• Revisiting algebraic identities • Visualising identities using geometrical models • Factorisation of algebraic expressions using identities • More identities and their applications • Visualising factorisation of quadratic expressions through algebra tiles and without using algebra tiles • Finding new identities • Simplifying rational expressions	CG-7, C-7.2, CG-9	The student will be able to: • Visualise algebraic identities using geometric models. • Determine the factors of algebraic expressions using identities. • Interpret factors of quadratic expressions through geometric models. • Find simplified versions of rational expressions. • Use computational thinking strategies, such as decomposition and step-by-step procedures to visualise algebraic identities, factor expressions, and simplify rational expressions.
Linear Equations in Two Variables	• Introduction to linear equations in two variables through practical examples • Solution of linear equation in two variables: graphical representation • Slope-intercept form of linear equation in two variables • Drawing graphs of linear equations when x and y assume only certain values • Pair of linear equations in two variables • Graphical method for solving a pair of linear equations in two variables • Nature of solutions: consistency and inconsistency • Algebraic methods of solving a pair of linear equations: substitution and elimination method	CG-3, C-3.2, C-8.1, CG-9	The student will be able to: • Understand the concept of a linear equation in two variables. • Graph a pair of linear equations. • Solve a pair of linear equations graphically. • Solve a pair of linear equations through the methods of substitution and elimination. • Determine the nature of solutions of a pair of linear equations. • Model and solve contextualised problems using a pair of linear equations and draw conclusions. • Model daily-life phenomena using representations, such as graphs, tables, and equations. • Use computational thinking to systematically represent, solve, and interpret pairs of linear equations through graphs, tables, and step-by-step procedures.

	UNIT III: COORDINATE GEOMETRY No. of periods : 6		
Coordinate Geometry	• Brief history of coordinate geometry • The 2-D Cartesian coordinate system • Distance between two points in the 2-D plane • Midpoint of the line-segment between two points in the 2-D plane	CG-4, C-4.5, CG-9	The student will be able to: • Specify locations and the position of one point relative to another point using coordinates. • Represent a floor plan on a grid using coordinates. • Compute the distance between two points using coordinates. • Determine whether three points lie in a straight line using coordinates. • Compute the position of the midpoint of a line segment using coordinates. • Check whether a triangle is right-angled using coordinates. • Apply computational thinking to model situations on the coordinate plane and verify geometric properties through systematic reasoning.
	UNIT IV: GEOMETRY No. of periods : 69		
Introduction to Euclid's Geometry: Axioms and Postulates	• History of geometry • Constructing a square with a given side as described in the Baudhayana's Sulbasutras • Discovering Euclid's definitions • Axioms: Axioms of measurement and rules for geometric objects	CG-7, C-7.1, C-7.3	The student will be able to: • Describe how geometry grew from the practical needs ancient civilisations. • Describe contributions of India, Egypt and Greece to the development of geometric ideas. • Understand the role of definitions, axioms, and postulates. • Explain that there are elements of plane geometry (point, line, surface) for which we have an intuitive sense. • State the 5 postulates of Euclidean geometry. • Define parallelism of straight lines. • Explain the construction of a square as given in the Sulbasutras. • Justify simple constructions using the axioms.
Lines and Angles	• Rays and angles • Measures of angles • Intersecting lines and angles • Pairs of angles • Theorems and examples on intersecting lines • Theorems and examples on parallel lines	CG-7, C-7.1, C-7.3, CG-9	The student will be able to: • Explain the notion of an angle. • Explain the notion of a ray. • Explain that angles are formed between two rays with a common starting point. • State that a straight angle equals two right angles and measures 180° while a right angle measures 90°.

			• Classify angles as acute, right, obtuse, or reflex. • Define parallelism. • State and apply the linear pair theorem and its converse. • Follow proof by contradiction in geometry. • Prove that vertically opposite angles are equal. • Identify corresponding, alternate, and interior angles. • Explain transitivity of parallelism. • Explain why a triangle must have at least two acute angles; why it cannot have two obtuse angles, or all three angles less than 60° • Apply computational thinking to analyse geometric ideas by breaking constructions into ordered steps, using axioms and postulates as rules, and justifying geometric results through logical step-by-step reasoning.
Triangles: Congruence Theorems	• Practical applications of triangles • Proofs of conditions of congruence of triangles • Theorems on triangles • Propositions and their converse • Problems based on applications of theorems on triangles	CG-4, C 4.1, C-7.3	The student will be able to: • Explain that a triangle is rigid, unlike a quadrilateral. • Identify uses of triangle rigidity. • Explain why triangles give strength and stability to structures. • Describe what it means for two triangles to be congruent. • Identify correspondence between the vertices, sides, and angles of two congruent triangles. • Use the SAS congruence axiom. • Use the SSS congruence condition. • Use the ASA congruence condition. • Use the RHS congruence condition. • Use the AAS congruence condition. • Prove the basic properties of isosceles triangles. • Explain the notion of a proposition. • Explain the notion of converse of a proposition. • Identify the converse of a given proposition. • Explain that not all converses are true; use counter examples to show that some converses are false. • Explain why SSA is not, in general, a valid congruence condition.

			• Identify the situations where SSA is a valid congruence condition. • Justify the role of diagram accuracy.
4-gons (Quadrilaterals)	• Properties of parallelograms • Important theorems related to parallelograms and their proof • Midpoint theorem and its applications • Understanding the notion of central symmetry in the context of parallelograms	CG-4, C-4.2, C-7.3	The student will be able to: • Frame a precise definition of a 4-gon. • Prove various characterisations of a parallelogram. • Prove the midpoint theorem. • Prove a converse of the midpoint theorem. • Prove that the medians of a triangle are concurrent and each median is divided in the ratio 2:1 at the point of concurrence. • Prove that the 4-gon formed by joining the midpoints of a given 4-gon is a parallelogram. • Find the coordinates of the midpoint of a line segment given its end points and find the coordinates of the fourth vertex of a parallelogram given the other three. • Understand reflection and rotation symmetries of 4-gons. • Understand how any 4-gon can tile a plane. • Practice forming logical converses of statements and asking questions guided by converses of theorems. • Engage in drawing, measurement and paper manipulation activities to discover geometric patterns involving triangles and 4-gons.
Circles	• Practical applications and uses of circles • Definitions related to a circle — centre, diameter, and radius • Chords and the angles they subtend • Midpoints and perpendicular bisectors of chords • Distance of chords from the centre • Subtended angles by an arc • Cyclicity of points	CG-4, C-7.3, CG-9	The student will be able to: • State the definition of a circle. • Explain the meanings of the terms ‘chord’, ‘diameter’, ‘radius’, ‘arc’, ‘segment’, and ‘sector’. • Explain why there exists a unique circle through three non-collinear points. • Construct the circumcircle and circumcentre of a triangle. • Describe the location of the circumcentre for acute, obtuse, and right-angled triangles. • Explain what ‘angle subtended by an arc at the centre’ means. • Explain why ‘equal chords subtend equal angles at the centre’.

			• Explain why ‘chords that subtend equal angles at the centre are equal’. • Explain why ‘the line from the centre of a circle to the midpoint of a chord is perpendicular to the chord’. • Explain why ‘a perpendicular from the centre to a chord bisects the chord’. • State the relationship between length of a chord and its distance from the centre of the circle. • Explain why ‘equal chords are equidistant from the centre (and conversely)’. • Explain why ‘among unequal chords, the longer chord is closer to the centre’. • Explain why ‘the diameter is the longest chord’. • Explain why ‘the angle subtended by an arc at the centre is double the angle subtended by the arc at any point on the remaining part of the circle’. • Explain why ‘angles in the same segment of a circle are equal’. • Explain why ‘the angle in a semicircle is a right angle’. • Determine when four given points are concyclic. • Explain why ‘a quadrilateral with supplementary opposite angles is cyclic, and conversely’. • Explain how circular wheels have influenced transport, farming, building, and technology. • Identify cultural motifs involving circles, for example, the Dharmachakra, Ashoka Chakra, Sudarshan Chakra. • Use computational thinking to break down circle-related problems, apply geometric rules step-by-step, and verify properties of figures, such as chords, angles, and cyclic quadrilaterals through systematic reasoning.
	UNIT V: MENSURATION **No. of periods : 27**		
Mensuration : Area and Perimeter	• Perimeter of shapes • Perimeter of a circle: Introduction to Pi and its irrationality • Length of an arc	CG-5, C-5.1, CG-9	The student will be able to: • Define perimeter as the length around the boundary of any shape. • Explain that the circumference-to-diameter ratio is constant for all circles.

	• Area of shapes: rectangles, parallelograms, and triangles • Heron's formula • Squaring a rectangle: Proof from Baudhayana's Sulbasutras • Area of a circle: derivation • Area of the sector of a circle • Brahmagupta's formula for area of a cyclic 4-gon • Heron's formula as a special case of Brahmagupta's formula		• List historical approximations to π (from Archimedes, Aryabhata, and Zu Chongzhi). • Compute the circumference of a circle and the length of an arc. • Apply ideas of circle perimeter and arc-length to real-world contexts. • Explain why a median of a triangle divides it into two triangles of equal area. • Use Heron's formula to compute the area of a triangle from its sides. • Explain the classical problem of 'squaring' a given shape. • Explain how ancient civilisations approximated the area of a circle. • Compute the area of a circle using the formula. • Explain and use the formula for area of a sector of a circle. • Solve problems on areas of sectors and segments of circles. • State Brahmagupta's formula for the area of a cyclic quadrilateral in terms of its sides. • Explain why Heron's formula is a 'special case' of Brahmagupta's formula. • Explain the notion of 'special case' and 'generalisation' in mathematics. • Use computational thinking to break down shapes, apply step-by-step methods to calculate perimeter and area, recognise patterns across formulae, and understand generalisation and special cases in geometry.
Mensuration : Surface Area and Volume	• Surface areas and volumes of spheres (including hemispheres) and right circular cones	CG-5, C-5.1, CG-9	The student will be able to: • Recognise cuboids and cubes in real-life situations. • Compute the surface area and volume of a cuboid. • Explain how a cube is a 'special case' of a cuboid. • Describe a right circular cylinder using its radius and height. • Compute the surface area and volume of a cylinder. • Recognise cones in daily life, and describe them using radius and height.

			• Compute the surface area and volume of a cone. • Recognise a pyramid, and identify its base and apex. • Compute the surface area and volume of a pyramid. • Recognise spheres in real-life situations. • Compute the surface area and volume of a sphere. • Use computational thinking to systematically calculate, and compare surface areas and volumes of 3-D shapes by varying dimensions and analysing patterns.
	UNIT VI: STATISTICS AND PROBABILITY No. of periods : 24		
Statistics	• Graphical representation of data • Measures of central tendency	CG-6, C-6.1, CG–9	The student will be able to: • Collect, organise, visualise and interpret data to answer a statistical investigative question. • Compute and apply weighted average in different settings. • Read and interpret stacked bar graphs and 100% stacked bar graphs. • Apply computational thinking strategies to analyse real-life data, create appropriate graphical representations, and interpret mean, median and mode for decision-making.
Introduction to Probability	• Concept of probability and randomness • The probability scale • Empirical probability: analysing statistical data and performing experiments • Theoretical probability: sample space and events • Representing probability through tree diagrams and tables	CG-6, C-6.2, CG-9	The student will be able to: • Understand the concept of randomness. • Describe the likelihood of an event using the probability scale. • Estimate the empirical probability of the occurrence of an event by analysing statistical data. • Define theoretical probability of an event. • Apply the definition of theoretical probability to compute the probability of an event. • Compute probability of events with the help of tree diagrams and tables. • Use computational thinking strategies, such as pattern recognition and simulation, to model random experiments and estimate probabilities.

MATHEMATICS QUESTION PAPER DESIGN
CLASS – IX (2026-27)

Time: 3 Hrs. **Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	**Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
3	**Analysing:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	18	22
	Total	80	100

INTERNAL ASSESSMENT	**20 MARKS**
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

Prescribed Books:

1. Mathematics - Textbook for class IX - NCERT Publication
2. Guidelines for Mathematics Laboratory in Schools, class IX - CBSE Publication
3. Laboratory Manual - Mathematics, secondary stage - NCERT Publication
4. Mathematics exemplar problems for class IX, NCERT publication

संस्कृतम्

कक्षा - नवमी (2026-27)

पाठ्यक्रमः परीक्षानिर्देशाश्च

भाष्यते व्यवहारादिषु प्रयुज्यते इति भाषा। मानवः स्वमनसि विद्यमानान्विचारान् भावनाः अनुभूतिं च अर्थयुक्तैः ध्वनिभिः लिखितसङ्केतैः च व्यक्तीकरोति सा भाषा। भाषा अभिप्रायप्रकटनस्य साधनम्। वस्तुतः लोके द्वयोः मनुष्ययोः मध्ये परस्परम् अवबोधनाय, भावग्रहणाय, भावविनिमयाय च भाषया विना न अन्यत् स्पष्टतमं सरलतमं च साधनं विद्यते। लोके बहव्यः भाषाः सन्ति यासु संस्कृतभाषा प्राचीनतमा समृद्धा च अस्ति। संस्कृतभाषायाम् एव सन्ति ऋग्यजुस्सामाथर्वाः इति चत्वारः वेदाः, शिक्षा, व्याकरणं, निरुक्तं, ज्योतिषं, छन्दः कल्पः चेति षडङ्गानि, चतुर्दशविद्याः, विज्ञानम्, आयुर्वेदः, योगशास्त्रादयः ग्रन्थाः। अतः संस्कृतं केवलं भाषा न अपितु किञ्चन जीवनदर्शनम् इति वर्तते। इयं विद्या (भाषा) भारतीयानां प्रतिष्ठात्मिका कामधेनुः समस्तज्ञानप्रदात्री, ऐक्यप्रदात्री, धर्मार्थकाममोक्षप्रदात्री च अस्ति। सृष्टेः आदितः अद्यावधिः यत् शिक्षणं ज्ञानविज्ञानं च अस्ति तत् सर्वम् अस्यां भाषायामेव सन्निहितम् अस्ति। अतिसूक्ष्मभावनां प्रकटयितुं स्पष्टीकर्तुं संस्कृतं विना नैव अन्यत्र विद्यते सामर्थ्यम्। भारतीयं सर्वस्वं विश्वस्य समग्रं तत्त्वं च अस्यां भाषायाम् अस्ति।

संस्कृतस्य भाषावैज्ञानिकत्त्वम् – ऐतिहासिक-वर्णनात्मक-तुलनात्मकाध्ययन-द्वारा भाषायाः प्रकृतेः विकासोत्पत्तेः संरचनायाः अध्ययनपूर्वकं सर्वेषां विषयाणां सैद्धान्तिकः निर्णयः भाषाविज्ञानेन क्रियते। भाषाविज्ञान-नामकशास्त्रे शब्दानाम् उत्पत्तिः, वाक्यानां संरचना इत्यादीनां विषयाणां विचारः क्रियते। भाषाविज्ञानस्य सम्बन्धः सर्वेषां मानवानां भाषाभिः सह अस्ति। एवं भाषाविज्ञाने ध्वनेः, ध्वनि-उच्चारणोपयोगिनां स्वरयन्त्रमुखजिह्वादि-अङ्गानां प्रकृति-प्रत्ययादीनां, संज्ञासर्वनाम-क्रिया-विशेषणादीनां नामाख्यातोपसर्जननिपातानां पदपदार्थविषयकानां विकारादीनां विकारमूलककारकाणाम् अन्येषां विविधविषयाणाञ्च अध्ययनं क्रियते। भाषाविज्ञाने संस्कृतभाषा-विषयक-वर्णोत्पत्ति-सिद्धान्तस्य अतीव वैज्ञानिकं निरूपणं कृतं वर्तते।

राष्ट्रियशिक्षानीतौ (२०२०) इत्यत्र भाषा मानवसशक्तीकरणस्य आधारः साधनं वा अङ्गीकृतं वर्तते। भारतस्य परमविशिष्टस्य गतज्ञानवैभवस्य पुनः प्रतिष्ठापनमपि राष्ट्रियशिक्षानीतेः २०२० इत्यस्याः लक्ष्यमस्ति। एतदर्थं संस्कृतभाषयाः शिक्षणस्य महत्त्वम् इतोऽप्यधिकं भवति। प्रायः सर्वासु भाषासु संस्कृतपरकशब्दाः उपलभ्यन्ते। संस्कृतभाषा भारतीयभाषाणां जननी इति कथ्यते। सर्वासु भारतीयभाषासु संस्कृतभाषा अन्तर्लीना अस्ति इति सर्वे अङ्गीकुर्वन्ति।

भारतदेशः बहुभाषी देशोऽस्ति। अस्मिन् देशे अनेकतायाम् एकतावर्धिनी भाषेयं सामाजिकसमरसतायै जीवनविकासाय च आवश्यकी वर्तते। संस्कृतस्य सांस्कृतिकं महत्त्वं वर्णयन्तः विद्वांसः कथयन्ति "भारतस्य प्रतिष्ठे द्वे संस्कृतं संस्कृतिस्तथा, संस्कृतिमूलं संस्कृतम्, साहित्यं संस्कृतिवाहकञ्च इति।" एषा संस्कृतिः न केवलं भारतस्य अपि तु विश्वस्य मुकुटायमाना अस्ति। उक्तं च -

सत्यमहिंसादिगुणैः श्रेष्ठा विश्वबन्धुत्वशिक्षिका।
विश्वशान्तिः सुखधात्री भारतीया हि संस्कृतिः॥
संस्कृते संस्कृतिर्ज्ञेया संस्कृते सकलाः कलाः।
संस्कृते सकलं ज्ञानं संस्कृते किन्न विद्यते॥

एवं संस्कृतभाषा परिनिष्ठिता, दोषरहिता, सरला, गभीरा, यथार्था वैज्ञानिकी च भाषा अस्ति। सम्प्रति युगेऽस्मिन् प्रमुखैः उद्देश्यैः संस्कृतभाषा शिक्षणीया अस्ति।

शिक्षणोद्देश्यानि –

भाषायाः प्रभावपूर्णसम्प्रेषणाय विविधानां मौखिकलेखनाभ्यासानां नवमाध्यमानां च प्रयोगः करणीयः भविष्यति।

यथा - चर्चा भाषणानि सन्दर्शनानि निबन्धाः पत्रलेखनं विद्युन्मानपत्रं (email) दृश्यश्रव्यमाध्यमानि च इत्यादयः वर्तन्ते।

- वसुधैव-कुटुम्बकम् इति भावनाविकासः।
- भारतीयभाषाणां संरक्षणम्।
- संस्कृतभाषया सम्प्रेषणकौशलविकासः।
- परस्परं संस्कृतसम्भाषणेन भावविनिमयः।
- संस्कृत-भाषया एव संस्कृत-शिक्षणम्।
- श्रवण-भाषण-पठन-लेखनेति चतुर्णां भाषिक-कौशलानां विकासः।
- बौद्धिकविकासपुरस्सरम् आध्यात्मिकनैतिकज्ञानम्।
- निर्णयात्मिकायाः बुद्धेः विकासः।
- तार्किकचिन्तनेन सह निर्भीकवक्तृत्वकौशलस्य विकासः।
- मानसिकविकासानन्दानुभूतिः रसानुभूतिश्च।
- भारतीयसंस्कृतेः संरक्षणं ज्ञानवर्धनञ्च।
- आत्मानुशासनसंस्थापनार्थं शिक्षणम्।
- सर्जनात्मकचिन्तनकौशलस्य विकासः।
- सामाजिकचेतनायाः विकासः।
- भाषाशिक्षणकौशलानि वर्धनाय नैपुण्यप्राप्तिः।
- परस्परं वार्तालापमाध्यमेन भावविनिमयः।
- संस्कृतसाहित्यस्य अध्ययनेन ज्ञानानन्दस्य अनुभूतिः।
- मानवजीवनस्य विकासपूर्वकं कल्याणम्।
- संस्कृतभाषया छात्राणां सर्वविधविकासः।

शिक्षणप्रविधयः -

- संस्कृतमाध्यमेन सम्भाषणविधिना शनैः शनैः संस्कृतशिक्षणं सम्भविष्यति। गतिवर्धनाय संस्कृताध्यापकैः धैर्येण स्वकीयाध्यापन-कार्यक्रमाणां नियोजनम्। रुचिकरभाषाभ्यासेन भाषिकोपलब्धिः। भाषिकाभ्यासाय वार्तालाप-कथाश्रवण-वादविवाद-संवादादि-वर्णनपरकाभिः प्रतियोगिताभिः भाषाशिक्षणं कारयितुं शक्यते।
- विभिन्नप्रामाणिकसंस्थानां कार्यक्रमाः साहित्यसामग्र्यश्च प्रयुज्य उत्तमशिक्षणं कर्तुं शक्यते।
- संस्कृतभाषया उपलब्ध-दृश्य-श्रव्य-सामग्री-माध्यमेन भाषाभ्यासः।
- आवश्यकतानुगुणं नवदृश्य-श्रव्य-सामग्री-निर्माण-माध्यमेन भाषायाः शिक्षणम्।
- विभिन्नपाठ्यसामग्रीद्वारा शिक्षकः स्वकीयं शिक्षणकार्यं रुचिकरं कर्तुं शक्नोति।
- भाषाशिक्षकः छात्रान् स्नेहपूर्वकम् (आत्मीयभावेन) पाठयेत्।
- अद्यतनपूर्वकं साहित्यकोश-शब्दकोश-सन्दर्भग्रन्थानां सहायतया छात्राणां तत्परतां रुचिवर्धनं च।
- प्राचीनार्वाचीनयोर्मध्ये समन्वयस्थापनद्वारा नूतनशिक्षणविधिभिश्च संस्कृतशिक्षणम्।

कौशलानि-

- **श्रवणकौशलम्** – भावाधिग्रहणाय ध्वन्यात्मकं भाषायाः प्रथमं कौशलम् इदम्। अस्य साधनानि- गुरुमुखम्, आकाशवाणी, दूरवाणी, परिवारसदस्याः, समाजः, कक्ष्याः, ध्वनिमुद्रणयन्त्रम्, दूरदर्शनम् इत्यादीनि।

- **भाषणकौशलम्**- भावाभिव्यक्तये ध्वन्यात्मकं भाषायाः इदं द्वितीयं कौशलम्। वाग्-रूपं भावप्रकटनम् एव भाषणम्, परिसरप्रभावेण आधारेण वा भाषणशक्तिः जायते।
- **पठनकौशलम्** – भावाधिग्रहणाय लिप्यात्मकं भाषायाः तृतीयं कौशलम् इदम्। (अर्थग्रहणपूर्वकं स्पष्टरूप-वाचनम् इत्यर्थः)
- **लेखनकौशलम्**- भावाभिव्यक्तये लिप्यात्मकं भाषायाः चतुर्थं कौशलम् इदम्। (ध्वनिरूपे विद्यमानं भाषांशं लिपिरूपे अवतारणं लेखनम् इति उच्यते)
- ज्ञानात्मक-अवबोधनात्मक-अनुप्रयोगात्मक-विश्लेषणात्मक-संश्लेषणात्मक-मूल्याङ्कनात्मक-लक्षिताधिगमनविशेषाः।

संस्कृतम्

कक्षा - नवमी (2026-27)

आहत्याङ्काः – 80+20

वार्षिकमूल्याङ्कनाय निर्मिते प्रश्नपत्रे चत्वारः खण्डाः भविष्यन्ति –

'क' खण्डः	**अपठितावबोधनम्**	**10 अङ्काः**
'ख' खण्डः	**रचनात्मककार्यम्**	**15 अङ्काः**
'ग' खण्डः	**अनुप्रयुक्तव्याकरणम्**	**25 अङ्काः**
'घ' खण्डः	**पठितावबोधनम्**	**30 अङ्काः**

खण्डानुसारं विषयाः मूल्यभारः च

क्र. सं.	विषयाः	प्रश्नप्रकाराः	मूल्यभारः
	'क' खण्डः **अपठितावबोधनम्**		**10 अङ्काः**
1.	एकः गद्यांशः (80-100 शब्दपरिमितः)	अति-लघूत्तरात्मकौ दीर्घोत्तरात्मकौ शीर्षकम् (लघूत्तरात्मकः) भाषिककार्यम् (बहुविकल्पात्मकाः)	2×1=2 2×2=4 1×1=1 3×1=3
		पूर्णभारः	**10 अङ्काः**
	'ख' खण्डः **रचनात्मककार्यम्**		**15 अङ्काः**
2.	सङ्केताधारितम् औपचारिकम् अथवा अनौपचारिकं पत्रलेखनम् (मञ्जूषायाः सहायतया रिक्तस्थानपूर्तिमाध्यमेन पूर्णं पत्रं लेखनीयम्)	निबन्धात्मकः	10×½=5
3.	चित्रवर्णनम् अथवा अनुच्छेदलेखनम्	निबन्धात्मकः	5
4.	संवादपूर्तिः / कथापूर्तिः	निबन्धात्मकः	10×½=5

	(मञ्जूषायाः सहायतया रिक्तस्थानपूर्तिमाध्यमेन पूर्णः संवादः / कथा लेखनीया)		
		पूर्णभारः	**15 अङ्काः**
'ग' खण्डः **अनुप्रयुक्तव्याकरणम्**			**25 अङ्काः**
5.	सन्धयः	लघूत्तरात्मकाः.	3×1=3
6.	कारक-उपपदविभक्तयः	बहुविकल्पात्मकाः	3×1=3
7.	शब्दरूपाणि	बहुविकल्पात्मकाः.	3×1=3
8.	धातुरूपाणि	बहुविकल्पात्मकाः.	3×1=3
9.	प्रत्ययाः	बहुविकल्पात्मकाः	3×1=3
10.	समासः	बहुविकल्पात्मकाः	3×1=3
11.	सङ्ख्या – १-१०० (१-४ केवलं प्रथमा-विभक्तौ)	लघूत्तरात्मकाः	3×1=3
12.	उच्चारणस्थानानि	लघूत्तरात्मकाः	4×½=2
13.	अव्ययानि	लघूत्तरात्मकाः	4×½=2
		पूर्णभारः	**25 अङ्काः**
'घ' खण्डः **पठितावबोधनम्**			**30 अङ्काः**
14.	गद्यांशः	अति-लघूत्तरात्मकौ दीर्घोत्तरात्मकौ लघूत्तरात्मकौ (भाषिककार्यम्)	2×½=1 2×1=2 2×1=2
15.	पद्यांशः	अति-लघूत्तरात्मकौ दीर्घोत्तरात्मकौ लघूत्तरात्मकौ (भाषिककार्यम्)	2×½=1 2×1=2 2×1=2
16.	नाट्यांशः	अति-लघूत्तरात्मकौ दीर्घोत्तरात्मकौ लघूत्तरात्मकौ (भाषिककार्यम्)	2×½=1 2×1=2 2×1=2
17.	प्रश्ननिर्माणम्	दीर्घोत्तरात्मकः	5×1=5
18.	अन्वयः अथवा भावार्थः	दीर्घोत्तरात्मकः	4×1=4
19.	पाठाधारित-कथापूर्तिः (मञ्जूषापदसहायतया रिक्तस्थानपूर्तिः)	निबन्धात्मकः	6×½=3
20.	प्रसङ्गानुकूलम् अर्थचयनम्	बहुविकल्पात्मकाः	3×1=3
		पूर्णभारः	**30 अङ्काः**

सम्पूर्णभारः 80 अङ्काः

प्रश्नपत्र-प्रारूपम् / संरचना

संस्कृतम्

कक्षा - नवमी (2026-27)

प्रश्नप्रकारः	प्रश्नानां सङ्ख्या	विभाग-सङ्ख्या	प्रतिप्रश्नम् अङ्कभारः	आहत्याङ्काः
अति-लघूत्तरात्मकाः 1 अङ्कः	2=2	1	1	2
अति-लघूत्तरात्मकाः ½ अङ्कः	2+2+2=6	3	½	3
बहुविकल्पात्मकाः 1 अङ्कः	3+3+3+3+3+3+3=21	7	1	21
लघूत्तरात्मकाः ½ अङ्कः	4+4=8	2	½	4
लघूत्तरात्मकाः 1 अङ्कः	1+3+3+2+2+2=13	6	1	13
दीर्घोत्तरात्मकाः 1 अङ्कः	2+2+2+5+4=15	5	1	15
दीर्घोत्तरात्मकाः 2 अङ्कौ	2=2	1	2	4
निबन्धात्मकाः 3 अङ्काः	1=1	1	3	3
निबन्धात्मकाः 5 अङ्काः	1+1+1=3	3	5	15
			आहत्याङ्काः	**80**

संस्कृतम्

कक्षा-नवमी (2026-27)

वार्षिकं मूल्याङ्कनम्

'क' खण्डः अपठितावबोधनम्	(10 अङ्काः)
1. एकः अपठितः गद्यांशः 80-100 शब्दपरिमितः गद्यांशः, सरलकथा वर्णनं वा ➢ एकपदेन पूर्णवाक्येन च अवबोधनात्मकं कार्यम् (2+4) ➢ शीर्षकलेखनम् (1) ➢ अनुच्छेदाधारितं भाषिकं कार्यम् (3) भाषिककार्याय तत्त्वानि - ✓ वाक्ये कर्तृ-क्रियापदचयनम् ✓ कर्तृ-क्रिया-अन्वितिः ✓ विशेषण-विशेष्यचयनम् ✓ पर्याय-विलोमपदचयनम् ✓ सर्वनामस्थाने संज्ञाप्रयोगः	**10**

'ख' खण्डः रचनात्मककार्यम्	(15 अङ्काः)
2. सङ्केताधारितम् औपचारिकम् अथवा अनौपचारिकं पत्रलेखनम् (मञ्जूषायाः सहायतया रिक्तस्थानपूर्तिमाध्यमेन पूर्णं पत्रं लेखनीयम्)	5
3. चित्राधारितं वर्णनम् अथवा अनुच्छेदलेखनम् (मञ्जूषायाः सहायतया चित्रवर्णनम् अनुच्छेदलेखनं वा करणीयम्)	5
4. संवादपूर्तिः / कथापूर्तिः (कथा छात्रस्तरानुगुणम् एव भवेत्।) (मञ्जूषायाः सहायतया रिक्तस्थानपूर्तिमाध्यमेन पूर्णः संवादः / कथा लेखनीया।)	5
'ग' खण्डः अनुप्रयुक्तव्याकरणम्	(25 अङ्काः)
5. सन्धिकार्यम् (1+1+1) ➢ स्वरसन्धिः - दीर्घः, गुणः, वृद्धिः, यण्, अयादि, पूर्वरूपम् ➢ व्यञ्जनसन्धिः –जश्त्वसन्धिः, 'म्' स्थाने अनुस्वारः, तुगागमः ➢ विसर्गसन्धिः – उत्वम्, विसर्गस्य सत्वम्, शत्वम्, षत्वम्, रत्वम्	3
6. कारक-उपपद-विभक्तयः ➢ द्वितीया – उभयतः, धिक्, परितः, समया, निकषा, प्रति, विना ➢ तृतीया – सह, साकम्, सम्, सार्धम्, विना, अलम्, सदृश, हीन ➢ चतुर्थी – रुच्, दा (यच्छ्), नमः, कुप्, स्वस्ति ➢ पञ्चमी – विना, बहिः, भी, रक्ष्, ऋते ➢ षष्ठी – उपरि, अधः, पुरतः, पृष्ठतः, निर्धारणे ➢ सप्तमी- स्निह्, निपुणः, विश्वस्, पटु	3
7. शब्दरूपाणि ➢ पुँल्लिङ्गशब्दाः – बालकवत्, कविवत्, साधुवत्, पितृवत्, राजन्, भवत्, विद्वस्, गुणिन् ➢ स्त्रीलिङ्गशब्दाः – लतावत्, मतिवत्, नदीवत्, मातृवत्, धेनुवत् ➢ नपुंसकलिङ्गशब्दाः – फलवत्, वारि, जगत्, मनस्, चक्षुष् ➢ सर्वनामशब्दाः – तत्, इदम्, किम् (त्रिषु लिङ्गेषु), अस्मद्, युष्मद्	3
8. धातुरूपाणि ➢ परस्मैपदिनः - पठ्, गम्, वद्, भू, क्रीड्, नी, दृश्, शक्, ज्ञा, अस्, कृ, दा, क्री, श्रु, पा (पिब्) (पञ्चसु लकारेषु) ➢ आत्मनेपदिनः - सेव्, लभ्, रुच्, मुद्, वृध् (लट्-लृट्-लोट्-लकारेषु) ➢ उभयपदिनः – कृ, पच्, नी, कृष्, हृ, भज् (केवलं लट्लकारे)	3
9. प्रत्ययाः ➢ क्त्वा, तुमुन्, ल्यप्, क्त, क्तवतु, शतृ, शानच्	3

10. समासः – तत्पुरुषः (विभक्ति-नञ्-उपपद-कर्मधारय) 11. सङ्ख्या – 1-100 (1-4 केवलं प्रथमा-विभक्तौ) 12. उच्चारणस्थानानि 13. अव्ययानि ➢ स्थानबोधकानि – अत्र, तत्र, अन्यत्र, सर्वत्र, यत्र, एकत्र, उभयत्र ➢ कालबोधकानि – यदा, तदा, सर्वदा, एकदा, पुरा, अधुना, अद्य, श्वः, ह्यः ➢ प्रश्नबोधकानि – किम्, कुत्र, कति, कदा, कुतः, कथम्, किमर्थम् ➢ अन्यानि – च, अपि, यदि, तर्हि, यथा, तथा, सम्यक्, एव, तु	3 3 2 2
'घ' खण्डः **पठितावबोधनम्**	**(30 अङ्काः)**
14. गद्यांशम् अधिकृत्य अवबोधनात्मकं कार्यम् प्रश्नप्रकाराः – एकपदेन पूर्णवाक्येन च प्रश्नोत्तराणि भाषिककार्यम् – ➢ वाक्ये कर्तृ-क्रियापदचयनम् ➢ विशेषण-विशेष्यचयनम् ➢ पर्याय-विलोमपचयनम् ➢ सर्वनामस्थाने संज्ञाप्रयोगः	5
15. पद्यांशम् अधिकृत्य अवबोधनात्मकं कार्यम् प्रश्नप्रकाराः – एकपदेन पूर्णवाक्येन च प्रश्नोत्तराणि भाषिककार्यम् – ➢ वाक्ये कर्तृ-क्रियापदचयनम् ➢ विशेषण-विशेष्यचयनम् ➢ पर्याय-विलोमपचयनम् ➢ सर्वनामस्थाने संज्ञाप्रयोगः	5
16. नाट्यांशम् अधिकृत्य अवबोधनात्मकं कार्यम् प्रश्नप्रकाराः – एकपदेन पूर्णवाक्येन च प्रश्नोत्तराणि भाषिककार्यम् – ➢ वाक्ये कर्तृ-क्रियापदचयनम् ➢ विशेषण-विशेष्यचयनम् ➢ पर्याय-विलोमपचयनम् ➢ सर्वनामस्थाने संज्ञाप्रयोगः	5
17. वाक्येषु रेखाङ्कितपदानि अधिकृत्य उचितप्रश्ननिर्माणम् 18. अन्वयः अथवा भावार्थः (रिक्तस्थानपूर्तिः) 19. पाठाधारित-कथापूर्तिः (मञ्जूषापदसहायतया रिक्तस्थानपूर्तिः) 20. प्रसङ्गानुकूलम् अर्थचयनम्	5 4 3 3

आहत्याङ्काः - 80

परीक्षायै निर्धारिताः पाठाः – शीघ्रमेव सूचयिष्यन्ते

निर्धारितपाठ्यपुस्तकम् –

1. पाठ्यपुस्तकम् - **शीघ्रमेव सूचयिष्यते**
   (प्रकाशनम् – रा.शै.अनु.प्र.परि. द्वारा)

अवधेयम् -

* अनुप्रयुक्तव्याकरणस्य अंशानां चयनं यथासम्भवं 'पाठ्यपुस्तकात् करणीयम्।
* पुस्तकपाठादिसहितं पूर्णः पाठ्यक्रमः शीघ्रमेव सूचयिष्यते।

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नवमी

आन्तरिक-मूल्याङ्कनम् - 20 अङ्काः

उद्देश्यानि

- ❖ छात्राणां सृजनात्मकक्षमतायाः विकासः।
- ❖ श्रवण-भाषण-पठन-लेखनकौशलानां विकासः।
- ❖ चिन्तनक्षमतायाः आत्मविश्वासस्य च संवर्धनम्।

क्र. सं.	गतिविधयः	उदाहरणानि	अङ्काः	निर्देशाः	मूल्याङ्कनबिन्दवः
1.	**आवधिक-परीक्षाः (पीरियोडिक् - असैस्मैंट)**	लिखितपरीक्षा	05	विद्यालयेन समये समये लिखितपरीक्षाणाम् आयोजनं करणीयं भवति।	परीक्षासु यत्र विद्यार्थिनः श्रेष्ठाः अङ्काः स्युः तयोः द्वयोः परीक्षयोः एव अधिभारः ग्रहीतव्यः। अपि च आवधिकपरीक्षासु अपि प्रश्नेषु आन्तरिकविकल्पाः देयाः। मूल्याङ्कनसमये यदि छात्रः सर्वान् प्रश्नान् उत्तरति तर्हि छात्रहिताय यत्र अधिकाः अङ्काः सन्ति तेषाम् एव मूल्याङ्कनं करणीयम्।

2	**बहुविधमूल्याङ्कनम्**	❖ कक्षायां पाठितस्य पाठस्य लघुमूल्याङ्कनम् ❖ निर्गतपत्राणि ❖ प्रश्नोत्तरी ❖ मौखिकी परीक्षा ❖ प्रतियोगिताः ❖ प्रश्नमञ्जस्यायोजनम्	05	कक्षायां पाठित-पाठस्य विषयस्य वा बहुविधं मूल्याङ्कनम् अपेक्षितम् अस्ति। अनेन विद्यार्थिनां विविधकौशलानां मूल्याङ्कनं भवेत्।	❖मौलिकता ❖विषयसम्बद्धता ❖शुद्धता ❖समयबद्धता ❖प्रस्तुतीकरणम्
3.	**निवेशसूचिका (पोर्टफोलियो)**	❖ कक्षाकार्यम् ❖ सामूहिक-मूल्याङ्कनम् ❖ स्वमूल्याङ्कनम् ❖ विद्यार्थिनः विषयगताः उपलब्धयः	05	विद्यार्थिभिः कक्षायां कृतानां कार्याणाम् उपलब्धीनां च संरक्षणं संयोजनं च सञ्चिकायां पत्रावल्यां वा करणीयम्। एतेन समग्रं मूल्याङ्कनं प्रमाणिकत्वेन भवितुं शक्नोति।	❖ सुलेखः ❖ तथ्यात्मकता ❖ प्रामाणिकता ❖ समयबद्धता
4.	**भाषा-संवर्धनाय गतिविधयः** **(क) श्रवण-भाषण-कौशलम्**	❖ कथा ❖ संवादः/ वार्तालापः ❖ भाषणम् ❖ नाटकम् ❖ वार्ताः ❖ आशुभाषणम् ❖ संस्कृतगीतानि ❖ श्लोकोच्चारणम् ❖ प्रहेलिकाः	05	❖ छात्राः कामपि कथां श्रावयितुं शक्नुवन्ति। ❖ शिक्षकः कमपि विषयं सूचयित्वा परस्परं संवादं कारयितुं शक्नोति। ❖ दूरदर्शने वार्तावली इत्याख्यः संस्कृत-कार्यक्रमः प्रसारितः भवति तं द्रष्टुं छात्राः प्रेरणीयाः। ❖ श्रवण-कौशल-मूल्याङ्कनाय शिक्षकः स्वयम् अपि कथां श्रावयित्वा ततः सम्बद्ध-प्रश्नान् प्रष्टुं शक्नोति।	❖ उच्चारणम् ❖ शुद्धता ❖ समयबद्धता ❖ प्रस्तुतीकरणम् (आरोहावरोह-गतियति-प्रयोगः)
	(ख) लेखनकौशलम्	❖ विविधविषयान् आधृत्य मौलिकलेखनम् यथा– देशः, माता, पिता, गुरुः, विद्या पर्यावरणम्, योगः, समयस्य सदुपयोगः,		❖ छात्राः यथाशक्यं कक्षायामेव लेखनकार्यं कुर्युः। ❖ टिप्पणी- पुस्तिकायाः निर्माणम्। ❖ वैयक्तिकपरीक्षणम्।	❖ विषय-सम्बद्धता ❖ शुद्धता (विशेषतः पञ्चमवर्णस्यप्रयोगः) ❖ समयबद्धता ❖ सुलेखः ❖ प्रस्तुतीकरणम्

		शिक्षा, अनुशासनम् इत्यादयः। ❖ शैक्षिकभ्रमणस्य संस्कृतेन प्रतिवेदनलेखनम्। ❖ दैनन्दिनीलेखनम्। ❖ सङ्केताधारितं कथालेखनम्। ❖ भित्तिपत्रिकायाः निर्माणम्। ❖ श्रुतलेखः। ❖ सूक्तिलेखनम्।			
	अवधातव्यम् –उपर्युक्त-गतिविधयः उदाहरणरूपेण प्रदत्ताः सन्ति। एतदतिरिच्य एतादृशाः अन्यगतिविधयः अपि भवितुमर्हन्ति।				

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