GOVT. OF NCT OF DELHI: DIRECTORATE OF EDUCATION EXAMINATION CELL, ROOM NO. 222-A OLD SECRETARIAT, DELHI-110054

NO. DE. 5/Exam/CAU/2025/89-92

Date: 29/01/2025

CIRCULAR

Subject: Must do Topics/ Focused Topics for Academic Session 2024-25 for classes X and X11

The Directorate of Education, GNCT of Delhi, is committed to fostering the academic growth of all students. In its endeavour to focus on bridging the learning gaps and offering tailored support for targeted groups of students in classes X and XII, the subject experts at the Core Academic Unit (CAU), along with the teachers of DoE, have identified key topics and chapters essential to bolster students' core competencies of the subject. A list of "**Must-Do**" topics, is included in Annexure I and II for each subject. These focused topics for the above mentioned elasses have been uploaded on the home page of website of Directorate of Education, Delhi at the link given below:

Academic & Examination — Examination Tips and related Links — Must do topics/ Focused topics 2024-25

All the Heads of Govt. and Govt. Aided Schools are hereby directed to provide the printouts of focused topics to the concerned teachers and ensure that the teachers give the students sufficient practice of the questions based on these topics.

This issues with the approval of the Competent Authority.

Dr. Rita Sharma Addl. DE (School/Exam)

Enclosures:

ANNEXURE -I **Must do Topics**/ Focused Topics - Class X ANNEXURE -II **Must do Topics**/ Focused Topics - Class XII All Heads of Govt. and Govt. Aided Schools through DEL.E Copy to:

- 1. PA to Director (Education)
- 2. All RDEs/DDEs (District & Zonal) through DEL E
- 3. OS (IT) to get it placed on DEL E
- 4. Guard File

Mr. Sanjay Subhas Kumar DDE (Exam)

ANNEXURE-I

MUST DO TOPICS CLASS: X MATHEMATICS

CHAPTER NAME	MUST DO TOPICS
REAL NUMBERS	 Relation between two numbers with their LCM & HCF Proof of irrationality
POLYNOMIAL	 Sum and product of Zeroes of polynomial Relationship between zeroes and coefficient of polynomial
PAIR OF LINEAR EQUATIONS IN TWO VARIABLES	 Condition for consistency and inconsistency Finding solution of linear equations by graphical method Finding solution of linear equations by elimination method and substitution method
ARITHMETIC PROGRESSION	 Explanation of symbols, an and n Finding first term, common difference and nth term of an AP Finding sum of an AP
COORDINATE GEOMETRY	 Distance formula Section formula Mid-point formula
Introduction to Trigonometry	1. Trigonometric ratios, Ratios of angles 30º, 45º and 60º 2. Problems related to height & distance
APPLICATIONS OF TRIGONOMETRY	 Explanation of terms like angle of elevation, angle of depression and line of sight Drawing of figure according to question
CIRCLES	 Tangents from an external point to a circle are equal Tangent is perpendicular to the radius at the point of contact Questions based on above two theorems
SURFACE AREAS AND VOLUME	 All formulas related to the chapter Questions based on conversion of solids
STATISTICS	 Finding mean by direct & assumed mean method Finding mode & median Relationship between mean, median and mode
PROBABILITY	Questions based on coins, cards and dice

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ENGLISH- CLASS X (184)

IMPORTANT TIPS

Reading Section

- Evaluate reading and comprehension skills, including analysis, inference, and evaluation of information.
- Practice passages from **Practice Papers**.
- Guide students on writing concisely.
- Emphasize **avoiding verbatim reproduction** from the passage without coherent structure or thought.
- Highlight the importance of understanding the **language of the question**: terms like *same as*, *synonymous to*, *antonym of*, *opposite of*, etc.
- Encourage skimming and scanning techniques for unseen passages.
- Reinforce that this section is scoring if students grasp question language properly.
- Incorporate Assertion and Reasoning Questions, aligned with the latest CBSE pattern, for thorough practice.

➢ Grammar:

- Revise **competency-based questions** on Tenses, Articles, Determiners, Modals, Correct Form of the Verb, and Reported Speech repeatedly.
- Emphasize both **identification** and **rectification** in Editing questions; incomplete without either aspect.
- Provide ample practice for Editing questions.
- Conduct competency-based practice in the classroom for better understanding.

> Writing Section:

- Use prescribed **formats** for all writing tasks in the syllabus.
- Discuss current affairs and socially relevant topics comprehensively.
- Take inspiration for writing tasks from **textbook lessons**.
- Practice Letter Writing and Analytical Paragraphs on suggested topics.

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> LITERATURE : (FIRST FLIGHT & FOOTPRINTS WITHOUT FEET)

- <u>Short Answer Type Questions</u> : A thorough reading and understanding of the Lessons to be able to attempt questions related to theme and character sketches. A thorough understanding of the poems and a clear idea of the central theme.
- <u>Long Answer Type Questions</u>: Mainly theme related questions. Interconnected questions from different chapters with similar themes can be asked. To be able to present well developed and justified arguments/evidence for the characters. Carefully structured content with a beginning, middle and end with highly relevant ideas presented cohesively.
- Instructions to be given to students:
- Convey the idea/s convincingly using appropriate language
- Organize the content and structure the idea logically, sequentially and cohesively
- Use a range of vocabulary and sentence structure appropriate to the content and context
- Use of functional language to show comparison, contrast, emphasis, conclusion etc.

हिंदी 'अ' (विषय कोड-002)

कक्षा-दसवीं, सत्र:2024-25

• संकेत बिंदुओं के आधार पर समसामयिक एवं व्यावहारिक जीवन से जुड़े हुए विषयों

• औपचारिक अथवा अनौपचारिक पत्र लेखन (लगभग 100 शब्दों में)

• रचना के आधार पर वाक्य-भेद (पहचान एवं रूपांतरण)

• वाच्य (पहचान एवं रूपांतरण)

• अलंकार (पहचान)

काव्य खंड

गद्य खंड

• पद (सूरदास)

पाठ्यपुस्तक (क्षितिज, भाग 2)

• आत्मकथ्य (जयशंकर प्रसाद)

• संगतकार (मंगलेश डबराल)

नेताजी का चश्मा (स्वयं प्रकाश)

• बालगोबिन भगत (रामवृक्ष बेनीप्री)

• नौबतखाने में इबादत (यतीन्द्र मिश्र)

पूरक पाठ्यपुस्तक (कृतिका भाग 2)

• साना-साना हाथ जोड़ि (मधु कांकरिया)

पर लगभग 120 शब्दों में अनुच्छेद लेखन

• माता का अँचल (शिवपूजन सहाय)

• मैं क्यों लिखता हूँ? (अज्ञेय)

• विज्ञापन लेखन (40 शब्दों में)

• संदेश लेखन (40 शब्दों में)

रचनात्मक लेखन

• एक कहानी यह भी (मन्नू भंडारी)

• यह दंतुरित मुस्कान, फसल (नागार्जुन)

व्याकरण

Must-Do Topics Class X, Session:2024-25 Subject :Science

Unit I. Chemical Substances - Nature and Behaviour

1. Chemical Reactions and Equations

Types of chemical reactions (combination, decomposition, displacement, double displacement, redox).

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- > Balancing chemical equations.
- > Applications of reactions in daily life.

2. Acids, Bases, and Salts

- > Properties and reactions of acids and bases.
- \succ pH scale and its importance.
- > Common salts: preparation, properties, and uses.

3. Metals and Non-Metals

- > Properties of metals and non-metals.
- > Reactions of metals with acids, water, and oxygen.
- > Corrosion and its prevention.

4. Carbon and its Compounds

- > Covalent bonding in carbon compounds.
- > Homologous series, functional groups.
- > Important reactions: combustion, substitution, addition, and esterification

Unit II. World of Living

5. Life Processes

- \succ Nutrition, respiration, transportation, excretion in plants and animals.
- Control and Coordination
 - Nervous system and endocrine system in humans.
 - \succ Tropic movements in plants and plant hormones.

7. How Do Organisms Reproduce?

- > Modes of reproduction: asexual and sexual.
- > Human reproductive system and menstrual cycle.
- Reproductive health.
- 8. Heredity

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- Mendel's laws of inheritance.
- \succ Sex determination in humans.

Unit III. Natural Phenomena

9. Light – Reflection and Refraction

- > Laws of reflection and refraction.
- \succ Image formation by mirrors and lenses.
- > Applications of spherical mirrors and lenses.

10. Human Eye and the Colourful World

- > Structure and function of the human eye.
- Defects of vision and their correction.
- > Atmospheric refraction and dispersion (rainbow formation).

Unit IV. Effects of Current

11. Electricity

- \succ Ohm's law, series and parallel circuits.
- \succ Power and energy in electrical appliances.

12. Magnetic Effects of Electric Current

- Magnetic field and field lines.
- Electromagnetic induction.
- Domestic electric circuits.

Unit V. Natural Resources

13. Our Environment

- > Ecosystem: components and functioning.
- > Waste management: biodegradable and non-biodegradable.

Tips for Students

- 1. Prioritize understanding concepts over rote memorization.
- 2. Practice numerical problems in Physics and Chemistry regularly.
- 3. Draw and label diagrams neatly for Biology topics.
- 4. Solve NCERT exercises and additional questions from exemplar books.
- 5. Revise key definitions, reactions, and laws frequently.
- 6. Attempt past year question papers and sample papers for practice.

SOCIAL SCIENCE

Class X

Must to Do Topics

India and the Contemporary World II

CH.1 The Rise of Nationalism in Europe

- Reasons for the Rise of Nationalism in Europe
- French Revolution and Nationalism and Napoleonic code of 1804
- Vienna Conference
- Unification of Italy
- Unification of Germany
- Nationalism in Britain
- Nationalism in Greece
- Balkan Crisis
- Picture based question on symbols and their meaning

CH.2 Nationalism in India

- Idea of Satyagraha of Mahatma Gandhi
- Impact of First World War on India
- Comparative study of Non Comparative & Civil Disobedience movement (special emphasis on Aim, Methods, Participation, outcome/ limit)
- Perception of Swaraj by Different sections of Society
- Role of Ambedkar (Poona Pact & Depressed Class Association)
- How sense of collective belongingness emerged in India
- Short note on Rowlatt Act, Jallianwala Bagh, Khilafat Movement, Simon Commission, Round table conference)
- Map Work

CH. 3 The Making of Global World

- Silk Routes Link the World
- Food Travels: Spaghetti and Potato
- Conquest, Disease and Traders

CH.5 Print Culture and the Modern World

- The First Printed Books
- Print Comes to Europe
- The Print Revolution and its Impact
- The Reading Mania
- The Nineteenth Century

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- India and the World of Print
- Religious Reform and Public Debates
- New forms of Publication
- Print and Censorship

Contemporary India II

CH.1 Resources and Development

- Types of Resources
- Development and Conservation of Resources (Sustainable Development)
- Land Resources, Utilization, Degradation and conservation
- Types of Soils, Soil Erosion and Soil Conservation
- Map Work

CH.2 Forest and Wildlife Resources

- Conservation of Forest and Wildlife in India
- Types and Distribution of Forest and Wildlife Resources
- Community and Conservation

CH.3 Water Resources

- Water Scarcity and the Need for Water Conservation and Management
- Multi-Purpose River Projects and Integrated Water Resources Management
- Rainwater Harvesting
- Map Work

CH.4 Agriculture

- Types of Farming
- Cropping Pattern
- Major Crops
- Technological and Institutional Reforms
- Map Work

CH.5 Minerals and Energy Resources

- What is Mineral?
- Mode of Occurrence of Minerals
- Classification of Minerals
- Conservation of Minerals
- Energy Resources
- Conventional Sources and Non- Conventional Sources of Energy
- Conservation of Energy Resources
- Map Work

CH.6 Manufacturing Industries

- Importance of Manufacturing Industries
- Factors affecting location of Industries
- Classification of Industries
- Industrial Pollution and Environmental Degradation
- Control of Environmental Degradation
- Map Work

CH.7 Life Lines of National Economy

Map Work

Democratic Politics II

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CH.1 Power Sharing

- Comparative study of power sharing in Belgium and Sri Lanka (Problems and Accommodation)
- Forms of Power Sharing
- Need and Importance of power sharing

CH.2 Federalism

- Key features of Federalism
- Difference between coming together federation and Holding together federation
- Distribution of Powers
- Language policy and Linguistic States
- Decentralization in India (Panchayati Raj)

CH.3 Gender, Religion and Caste

- Gender and Politics
- Religion, communalism and politics
- Caste and politics

CH.4 Political Parties

- Meaning, Function and need of Political Parties
- Types of Political Parties (National and State)
- Policies and Symbols of National and Regional Political Parties in India
- Challenges to Political Parties
- How can Political Parties be reformed?

CH.5 Outcome of Democracy

- Evaluation of Democratic form of Government
- Political and Economic outcome of Democracy

Understanding Economic Development

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CH.1 Development

- Meaning of Development (Different people Different Goals)
- Key Feature of National Development
- Short Notes Per Capita Income, Infant Mortality Rate, Literacy Rate, Net Attendance Ratio.
- Human Development Index
- Sustainability of Development

CH.2 Sectors of Indian Economy

- Sectors of Economy
- GDP & Problem of Double Counting
- Types of Unemployment
- MGNREGA 2005
- Differentiate between Public and Private Sector
- Differentiate between Organized and Unorganized Sector

CH.3 Money and Credit

- Barter System & Double coincidence of Demand
- Forms of Currency (Modern and Old)
- Function of RBI
- Formal and Informal source of Credit
- Credit as an Assets and Debt Trap
- Condition for Credit
- Self Help Group (SHG's)

CH.4 Globalization and Indian Economy

- Factors affecting Globalisation
- Foreign Trade and Foreign Investment

संस्कृतम् (कोड-122) कक्षा– दशमी, सत्र– 2024-25

- अपठित गद्यांशः
 - कर्तृक्रिया-अन्वितिज्ञान
 - विशेष्यविशेषण
 - पर्याय-विलोमपद चयन
 - शीर्षक निकालना

• रचनात्मक लेखनम्

- रिक्तस्थान पूर्ति
- अनुच्छेद लेखन
- अनुवाद लेखन

• अनुप्रयुक्त-व्याकरणम्

- सन्धि/ सन्धिच्छेद अभ्यास
- समास विग्रह अभ्यास
- प्रकृति प्रत्यय बोध
- वाच्य परिवर्तन
- कालबोधकशब्द
- अव्ययपदचयन
- अशुद्धि संशोधन

• पठित-अवबोधनम्

गद्य	पद्य	नाट्य
बुद्धिर्बलवती सदा	शुचिपर्यावरणम्	सौहार्दं प्रकृतेः शोभा
जननी तुल्यवत्सला	सुभाषितानि	शिशुलालनम्
विचित्रः साक्षी	सूक्तयः	
कथाक्रम	अन्योक्तयः	
उचितार्थ चयन		

ANNEXURE-II

Chapterwise Must Do Topics in Class XII CBSE Mathematics for the year 2024-25

4

Chapter Name	 Must Do / Focused Topics
Relations and Functions	• Relations types
	• One One functions
	Onto Function
Inverse Trigonometric Functions	Inverse Trigonometric functions properties
Matrices	Matrices Multiplication
	• Properties of Symmetric and Skew Symmetric
Determinants	• Evaluation of 2x2 and 3x3 determinants
	• Non Singular Matricies and their inverses A^-1=adjA / A
	• Solutions of system of linear equations Using Matrix Method
Continuity and Differentiability	• Continuity
	• Derivatives of standard functions
	• Product Rule and Chain Rule
	Quotient Rule
	Second-order derivatives
	Logarithmic Differentiation
	• The parametric form of functions -Differentiation
	Rate of Change
	• Increasing and decreasing functions
	Local Maxima and Local Minima
Application of Derivatives	• Rate of change
	Increasing and decreasing functions
	• Finding Local maxima and minima using first and second-order test
Application of Integrals	• Area under curves
	Area Bounded by Simple figures like Circle, Ellipse
	• The area bounded by Curve & X axis or Y axis
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W Differential Equations

Vector Algebra

3-D Geometry

Linear Programming

Probability

- Differential equation Formation
- Linear differential equation

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Solving Differential Equation with variable separable methods

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- Homogeneous Differential Equation and its solution
- Scalar Product of Vectors
- Projection of Vectors on another vector
- Vector Product or cross product of Vectors and its properties
- Direction Cosines
- Direction Ratio of line
- Line Equation
- Condition for parallel lines and perpendicular lines
- Co-planarity of line
- The shortest distance between two skew lines
- The shortest distance between parallel lines
- Linear programming problems Graphical Solution
- Probability Multiplication theorem
- Independent Events
- Bayes' Theorem
- Binomial Distribution
- Random Variable and its probability distribution
- Mean of Random Variable

MUST DO SYLLABUS CLASS- XII (2024-25) ECONOMICS

SYLLABUS (2024-25):

Units		Marks
Part A	Introductory Macroeconomics	
	National Income and Related Aggregates	10
	Money and Banking	6
	Determination of Income and Employment	12
	Government Budget and the Economy	6
	Balance of Payments	6
		40
Part B	Indian Economic Development	
	Development Experience (1947-90)	
	and Economic Reforms since 1991	12
	Current Challenges facing Indian Economy	22
	Development Experience of India – A Comparison with	06
	Development Experience of India – A Comparison with Neighbours	06
	Development Experience of India – A Comparison with Neighbours Theory Paper (40+40 = 80 Marks)	06 40

POINTS TO REMEMBER:-

- 1. Please attempt all the questions.
- 2. Write down the correct serial number of the questions.
- 3. Please do not mix the questions of Part A with Part B.
- 4. Try to write your answers in point.
- 5. Draw the diagram wherever needed.
- 6. Try to attempt the questions in sequence

UNIT 1- National Income and related aggregates

- 1. Circular flow of income
- 2. Three methods of estimation of national income : steps and precautions.
- 3. Differences: national vs domestic income, factor/ transfer income, stock vs flow, capital vs consumer goods, final vs intermediate goods
- 4. Problem of double counting
- 5. Real GDP and nominal GDP
- 6. GDP as a true indicator of welfare has following limitations:
 - 1. Distribution of GDP
 - 2. Composition of GDP
 - 3. Externalities

UNIT 2 MONEY AND BANKING

Money : Functions of money and money supply Banking_: credit creation by commercial banks, functions of central bank

Unit-3 - Determination of Income and Employment

- 1. Consumption function, savings function.
- 2. APC, APS, MPC, MPS
- 3. Excess demand/ Inflationary gap & Deficient demand/ Deflationary gap
- 4. Measures to correct excess demand and deficient demand.
- 5. Explanation of short run equilibrium of income and employment
 - 1. AD AS Approach
 - 2. SAVING- INVESTMENT Approach
- 6. INVESTMENT MULTIPLIER

UNIT 4 - Government Budget and the Economy : Objectives, components and deficits

UNIT 5 - Balance of Payment and Foreign Exchange

- Current account, capital account : debit/ credit side
- Autonomous and Accommodating items

Foreign Exchange Rate

TYPES OF FOREIGN EXCHANGE RATES

- 1. Fixed Exchange Rate System
- 2. Flexible Exchange Rate System
- 3. Managed floating rate system
- 4. Currency Depreciation VS Currency Appreciation

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UNIT 6: Indian Economy 1947 -1991 and economic reforms since 1991

- Changes made by British govt in agriculture, industry, foreign trade and infrastructure and their impact on Indian economy.
- Post independence reforms in agriculture.
- Classification of industries as per IPR 1956, import substitution, trade barriers and small scale industries.
- Stabilization vs structural reforms, liberalization, privatization and globalization: outsourcing and WTO.
- Critical evaluation of the economic reforms.

UNIT 7 : Current Challenges Faced By The Indian Economy

Employment and Unemployment

- Types of workers
- Worker population ratio
- Casualization and informalization of workforce
- Jobless growth

Human capital formation

- Human capital vs human development
- Relation between human capital formation and economic growth
- Sources of human capital formation
- Role of government in human capital formation.

Rural Development

- Problems in agricultural credit
- Steps taken by government for agricultural marketing
- Need for agricultural diversification
- Benefits of organic farming

Environment And Sustainable Development

- Functions of environment
- Strategies for sustainable development

UNIT 8 - Comparative studies India, Pakistan and China

- Similarities between India, China and Pakistan
- Developmental path of China: great leap forward, cultural proletarian revolution, economic reforms of 1978.
- Reasons for re-emergence of poverty in Pakistan.
- Human development indicators.
- Liberty indicators.

Biology

Class-XII

Give sufficient emphasis to the following topics :-

Human reproduction,

Reproduction health,

Principle of inheritance and variation Molecular genetics ,

Evolution,

Microbes in human welfare

Biotechnology principles processes and its applications along with other chapters.

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- Must do Topics:
 - Isometric scale & position of solids with respect to H.P. and V.P. to draw Isometric Projection.
 - Ratios, dimensions and angles of different thread profile, machine parts.
 - Understand the correct arrangement of different parts for assembly/disassembly.
 - First angle Projection Symbol and Scale used.
 - Applications of different machine parts, axis and Code of practice for general engineering drawing (code IS 696:2003 revised).

Focused/Must-Do Topics for CBSE Class 12 English Core Annual Examination (2024-25)

Section A: Reading

- Two unseen passages to assess comprehension, interpretation, analysis, inference and evaluation.
- First unseen passage may be factual, descriptive or literary.
- Second unseen passage may be case-based factual passage with verbal/visual inputs like statistical data, charts etc.
- Vocabulary assessment will also be assessed via inference.
- The combined word limit for both the passages will be 700-750 words.
- Multiple Choice Questions / Objective Type Questions and Short Answer Type Questions (to be answered in 40-50 words) will be asked.
- Use passages from support materials, sample papers and practice papers for preparation.

Section B: Writing

- Tasks: Notices, Invitations (Formal/Informal/Replies), Letters, Articles and Reports.
- Formats to prioritize:
- oNotice/Invitation

○Job Application with Resume/Letter to the Editor ○Articles and Reports

- Effective Organisation: Introduction: Clearly state the purpose. Body: Develop logically with supporting examples, causes and effects. Conclusion: End with meaningful suggestions or a summary.
- Use a range of vocabulary to show comparison, contrast, emphasis and conclusions.
- Follow word limits.

Section C: Literature Textbooks: Flamingo & Vistas

1. Prose (Flamingo): The Last Lesson, Lost Spring, Deep Water, The Rattrap, Indigo, Poets and Pancakes, The Interview, Going Places.

2. Poetry (Flamingo): My Mother at Sixty-Six, Keeping Quiet, A Thing of Beauty, A Roadside Stand, Aunt Jennifer's Tigers.

3. Supplementary Reader (Vistas): The Third Level, The Tiger King, Journey to the End of the Earth, The Enemy, On the Face of It, Memories of Childhood (The Cutting of My Long Hair, We Too Are Human Beings).

- Read all chapters and poems thoroughly.
- Focus on: Key themes, character sketches, plots, figures of speech and symbols.
- Literary devices like humour, irony, symbolism, imagery, etc.
- Central ideas and paraphrases of poems.
- Short Answers (40-50 words): Brief, relevant and specific.
- Long Answers (120-150 words):
 - Introduction: Contextualize the question.
 - Body: Detailed explanation with examples from the text.
 - Conclusion: Logical summary.
- Extract-Based Questions:
- Identify the name of the poem and poet, prose and author, poetic and literary devices.
- Avoid copying lines from the extract; provide paraphrased answers.

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Ch.1 The End of Bipolarity	Soviet System, Disintegration of Soviet Union: Causes and Effects, Shock Therapy and it's consequences
Ch.2 Contemporary Centres of Power	European Union, ASEAN, China, India-China Relations
Ch.3 Contemporary South Asia	What is South Asia, Pakistan, Bangladesh, India Pakistan conflicts, Relations with other neighbours
Ch.4 International Organisations	Why International Organisations, UN after the cold war, Reform of Structures and Processes, India and the permanent membership of the Security Council, UN in a Unipolar World.
Ch.5 Security in the contemporary world	What is Security, Traditional Notions: External and Internal Security, Non Traditional Notions, New Sources of Threats, India's Strategy
Ch.6 Environment and Natural Resources	Environmental Concerns in global Politics, Global Commons, Responsibilities, India's Stand, Indigenous People and their rights.
Ch.7 Globalisation	Concept, Causes, Political, Economic and Cultural Consequences, Positive and Negatives, Resistance.

Book-1 Contemporary world Politics

Must do Topics for Class-XII Political Science (028) Yr.2024-25

Ch.1 Challenges of Nation Building	Three challenges of Nation building, Process and Consequences of Partition, Integration of Princely States, Jammu and Kashmir, Hyderabad.
Ch.2 Era of one party dominance	Congress dominance in first three general elections, CPI, BJS, Emergence of Opposition Parties.
Ch.3 Politics of Planned Development	Development, Planning Commission, Five year Plans.
Ch.4 India's External Relations	Policy of Non Alignment, Peace and Conflict with China and Pakistan, India's Nuclear Policy, Shifting alliances in world Politics.
Ch.5 Challenges to restoration of the Congress System	Challenges of Political Succession, Fourth general elections 1967, Split in the Congress, 1969 Presidential Election, 1971 Election and Restoration of Congress.
Ch.6 The Crisis of Democratic Order	Gujarat and Bihar Movements, Causes and Consequences of Emergency, Lessons of the Emergency, Loksabha Elections 1977.
Ch.7 Regional Aspirations	Daminu and Kasimir, North East, Punjao
Ch.8 Recent development in Indian Politics	Era of Coalition, Political rise of other
	backward classes, Mandal Commission,
	Emergence of new consequence,
	Communalism, Secularism, Democracy.

Book-2 Politics in India since Independence

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Must do topics of physical education class 12

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- Fixtures
- Role of different committees
- Common postural deformities
- Special consideration (menarche and menstrual dysfunction)
- Female athlete triad (osteoporosis, amenorrhea, eating disorders)
- Importance of various asanas for preventive measures of obesity, diabetes, asthma, hypertension, back pain.
- Advantages for Children with Special Need through Physical Activities
- Strategies physical activities accessible for children with special needs
- Eating for Weight control A Healthy Weight, The Pitfalls of Dieting, Food Intolerance and Food Myths
- Macro and Micro Nutrients: Food sources and functions
- BMI, BMR, Harvard step test
- Effect of exercise on Muscular System
- Effect of exercise on Cardio- Respiratory System
- Newton's Law of Motion & its application in sports.
- Types of Levers and their application in Sports.
- Friction and Sports
- Personality; its definition & types (Jung Classification & Big Five Theory)
- Psychological Attributes in Sports Self Esteem, Mental Imagery, Self Talk, Goal Setting
- Different types & methods to develop –strength, endurance, and speed in sports training.
- Different types & methods to develop flexibility and coordinative ability.

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S.N.	CHAPTER 1 ELECTRIC CHARGES AND FIELD
1.	Coulomb's Law.
2	Forces between multiple charges electric field due to system of charges
3	Electric field due to dipole along the axial and equatorial point.
4.	Electric dipole in an external electric field experiences a torque. Stable and
5.	Electric flux and Gauss's theorem and its applications to obtain electric field due to long straight charge conductor, thin infinite plane sheet of charge and spherical shell.
	CHAPTER-2: ELECTROSTATIC POTENTIAL AND CAPACITANCE
1.	Electric Potential and Electric potential energy due to electric dipole and system of point charges.
2.	Equipotential surfaces, and its property.
3.	Electric potential due to dipole at any point, axial point and equatorial point of dipole.
4.	Relation between electric field and potential.
5.	Effect of dielectric on capacitors, expression for capacitance of capacitor with dielectric.
6.	Combinations of capacitors, problems based on series and parallel.
7.	Energy stored in a capacitor qualitative and Problems based on Energy stored in capacitors.
	CHAPTER 3 CURRENT ELECTRICITY
1.	Ohm's Law and its Limitations: ohmic and non ohmic material.
2.	Temperature dependence of resistance and resistivity. Resistivity of different materials, viz metals insulators and semiconductor.
3.	Vector form of Ohms law.
4.	Relation between emf, internal resistance and terminal potential. Characteristics curve of a cell i.e graph between emf and resistance, terminal potential between resistance, current and potential.
5.	Combination of cells in series and parallel.
6.	Kirchhoff's law and problems.
	CHAPTER 4 MOVING CHARGES AND MAGNETISM
1.	Biot-savert's law and its application to find Magnetic field along the axis of a circular current carrying loop and at the centre of circular current loop.
2.	Lorentz magnetic force. (Force on charge particle in uniform magnetic field F=qvBsinθ)
3.	Motion of charge particle in a uniform magnetic field and its behaviour in different notations. Radius of charge particle in circular motion.

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4.	Ampere's circuital law and its application to derive an expression for magnetic field due to thin and thick current conductor.
5.	Force on current carrying conductor $F = IBl \sin \theta$. Force between two parallel
	current-carrying wires. $F = \frac{\mu_0}{2\pi} \frac{l_1 l_2}{r} l$ and define one ampere
6.	Torque on current-carrying loop in a magnetic field. And current carrying loop behave as a dipole
7.	Moving coil galvanometer principle, working, sensitivity and conversion to ammeter and voltmeter.
	CHAPTER-5: MAGNETISM AND MATTER
1.	Magnetic field lines and its properties
2.	Torque on a magnetic dipole (bar magnet) in a uniform magnetic field.
3.	Diamagnetic, Paramagnetic, Ferromagnetic Substance with examples.
	CHAPTER-6: ELECTROMAGNETIC INDUCTION
1.	Magnetic flux and SI unit
2.	Faraday's law of electromagnetic induction apply to various situation
3	Len's law is the law of conservation of energy
4.	Derivation of Motional EMF and its application to find emf of a metallic rod of length I is rotated with a frequency f, with one end hinged at the centre and the other end at the circumference of a circular metallic ring of radius r, about an axis passing through the Centre and perpendicular to the plane of the ring.
5.	Derivation of Self-inductance due to long straight solenoid and mutual- inductance of two coaxial solenoid.
	CHAPTER-7: ALTERNATING CURRENT
1.	rms value of current and voltage no derivation.
2.	Expression for current in RC, LR, and LCR Circuits and its phasor diagram.
3.	Power across L, C, R and LCR circuit and Power factor.
4.	Resonance and Sharpness.
5.	Transformers and AC generator. Theory, Principle working.
	CHAPTER 8 ELECTROMAGNETIC INDUCTION
1.	Displacement Current
2.	EM waves and source.
3.	Nature of EM waves/Spectrum and its uses and production.
	CHAPTER-9: RAY OPTICS AND OPTICAL INSTRUMENTS
1.	Image formation by spherical mirrors and spherical lenses(concave and convex)

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3.	Total internal reflection and its application
4.	Expression for mirror formula and lens formula for real and virtual image.
5.	Lens maker formula
6.	Refraction through a Prism. Obtain expression for angle of deviation and prism formula.
7.	Power and combination of lenses
8.	Ray diagram for Simple microscope, compound microscope and telescope and expression for magnification at least distance and far point CHAPTER-10: WAVE OPTICS
1	Types and behaviour of wavefront
2	Law of reflection and refraction on the basis of Huygen's wave theory
2.	Coherent courses and sustained interference of light
3.	Unterference of weight Amelitude, intensity and fringe width qualitative treatment
4.	Difference of wave. Amplitude, intensity and imige width qualitative treatment.
5	Diffraction of light. Fringe width of central maxima.
	CHAPTER-11: DUAL NATURE OF RADIATION AND MATTER
1.	Hertz and Lenard's observations.
2.	Experimental study of photoelectric effect. Variation intensity of light with current, Potential with current, frequency with stopping potential.
3.	Einstein's photoelectric equation.
4.	de-Broglie relation. For matter wave and electron.
	CHAPTER-12: ATOMS
1.	Alpha-particle scattering experiment; Rutherford's model of atom; distance of closest approach, impact parameter, trajectory of scattered alpha-particle.
2.	Postulates of Bohr model of hydrogen atom.
3	Expression for radius of nth possible orbit, velocity and energy of electron in nth orbit,
4.	Spectral series, Lymen, Balmer, Paschen, Bracket and pfund. Shortest and longest wave length.
	CHAPTER-13: NUCLEI
1.	size of nucleus. $R = R_o A^{1/3}$
2.	Nuclear density is independent of mass number.
3.	Nuclear force and its property.
4.	Mass defect and binding energy.
5.	Variation of binding energy per nucleon Vs atomic number
6.	Nuclear reaction, fission and fusion.

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	CHAPTER-14: SEMICONDUCTOR ELECTRONICS: MATERIALS, DEVICES AND SIMPLE CIRCUITS
1.	Difference between intrinsic and extrinsic semi-conductor.
2.	Difference between n type and p-type semi-conductor.
3.	Difference between metals, insulator and semi-conductor on the basis of band theory.
4.	p-n junction, drift and diffusion. Depletion layer, barrier potential.
5.	I-V characteristics in forward and reverse bias,
6.	Half wave and full wave rectifier, diagram, working input and out -put wave form.

MUST TO DO (2024-25)

CLASS:12

SUBJECT: SOCIOLOGY (CODE-039)

BOOK – 1 INDIAN SOCIETY

Chapter – 2 The Demographic Structure of the Indian Society

- Theories and Concepts in demography
- Rural Urban Linkages and Divisions
- Population policy in India

Chapter - 3 Social Institutions: Continuity and Change

- Caste and the Caste System
- Tribal Communities
- Family and Kinship

Chapter - 5 Patterns of Social Inequality and Exclusion

- Social Inequality and Social Exclusion
- Systems justifying and perpetuating Inequality caste, Tribe , the other Backward classes
- Adivasi Struggles
- The struggle for women's Equality and Rights
- The struggles of the Differently Abled

Chapter – 6 The Challenges of Cultural Diversity

- Cultural communities and the nation state
- Regionalism in the Indian context
- The Nation state and religion related Issues and identities
- Communalism ,Secularism and the nation state
- State and Civil Society

BOOK - 2 SOCIAL CHANGE AND DEVELOPMENT IN INDIA

Chapter – 1 Structural Change

• Understanding Colonialism, Industrialization, Urbanization

Chapter-2 Cultural Change

Social Reform Movements

• Different Kinds of Social Change: Sanskritisation, Westernization, Modernization, Secularization

Chapter – 4 Change and Development in Rural Society

- Agrarian Structure : Caste and Class in Rural India
- Land Reforms, Green Revolution and Emerging Agrarian society
- Green revolution and its Social Consequences
- Transformation in Rural Society
- Circulation of labour
- Globalization, Liberalization and Rural society

Chapter - 5 Change and Development in Industrial Society

- From Planned Industrialization to Liberalization
- How people find Jobs

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• Work Processes: How work is carried out, working conditions, home based work, Strikes and

Unions

Chapter – 8 Social Movements

- Concept of Social Movements
- Theories and Classification of Social Movements
- Environmental Movements
- Class -Based Movements: Workers, Peasants
- Caste-Based Movements: Dalit Movement, Backward Class/Castes, Trends in Upper Caste

Responses

- Tribal Movements
- . Women's Movements in Independent India

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अनिवार्य विषय-वस्तु बिंदु : विषय- हिंदी (ऐच्छिक), कक्षा 12

खंड 'क' – अपठित बोध

- अपठित गद्यांश अभ्यास- विद्यार्थी अपठित गद्यांश (लगभग 250 शब्द) पर आधारित बोध, चिंतन, विश्लेषण पर बहुविकल्पीय, अतिलघूत्तरात्मक, लघूत्तरात्मक प्रश्लों का अभ्यास अवश्य करें।
- अपठित पद्यांश अभ्यास- विद्यार्थी अपठित पद्यांश (लगभग 100 शब्द) पर आधारित बोध, सराहना, सौंदर्य, चिंतन, विश्लेषण आदि पर बहुविकल्पीय, अतिलघूत्तरात्मक, लघूत्तरात्मक प्रश्लों का अभ्यास अवश्य करें।

खंड 'ख' – अभिव्यक्ति और माध्यम

- पाठ 4- पत्रकारीय लेखन के विभिन्न रूप और लेखन प्रक्रिया तथा
- पाठ 5– विशेष लेखन-स्वरूप और प्रकार का अध्ययन अवश्य करें।
- पाठ 6- कैसे बनती है कविता, पाठ 7- नाटक लिखने का व्याकरण तथा
- पाठ 8– कैसे लिखें कहानी का विशेष अध्ययन करें।
- नए और अप्रत्याशित विषयों पर लगभग 100 शब्दों में रचनात्मक लेखन का अभ्यास अनिवार्य है।

खंड 'ग' – पाठ्यपुस्तक अंतरा भाग 2 और अंतराल भाग 2

- पाठ्यक्रम में निर्धारित सभी गद्य और पद्य पाठों के प्रमुख व्याख्येय स्थलों की सप्रसंग व्याख्या का अभ्यास अवश्य करें क्योंकि सप्रसंग व्याख्या का भारांक सबसे अधिक (6+6) 12 अंकों का है।
- सप्रसंग व्याख्या में संदर्भ, प्रसंग, व्याख्या और विशेष के बिंदुओं का ध्यान रखें तथा इसे क्रम से ही लिखें । भाव अथवा मूल कथ्य, संवेदना तथा भाषा और शिल्प को समझकर सभी पाठों के नाम और उनके लेखकों के नाम स्मरण कर लें ।

 पूरक पाठ्य पुस्तक के अधिकांश प्रश्न अनुप्रयोगात्मक होते हैं, इन प्रश्नों में आपके विचारों को प्रमुखता दी जाती है अतः आप जो भी उत्तर लिखें वह तर्कसंगत और संतुलित हो । अतः आपसे अपेक्षा की जाती है कि प्रत्येक पाठ की मूल संवेदना के मुख्य बिंदुओं को चिह्नित कर उनपर अपने विचार और तर्क प्रस्तुत करने का अभ्यास अवश्य करें ।

MUST DO TOPICS FOR CLASS-XII SUBJECT: ACCOUNTANCY

- 1. Fundamentals of partnership (Past adjustments and Guarantee)
- 2. Admission of a Partner (Capital Adjustment)
- 3. Retirement of a Partner (Capital adjustment)
- 4. Dissolution (Journal entries),
- 5. Issue of shares (forfeiture and reissue with pro rata)
- 6. Issue of Debentures (issue of debentures with term of redemption)
- 7. Items to be shown in the balance sheet under different heads and sub heads
- 8. Comparative and common size statements
- 9. Ratio Analysis (Short term and Long term solvency ratios)
- 10. Cash flow Statement (Operating, Investing and Financing Activities)

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MUST DO TOPICS FOR CLASS-XII

SUBJECT: BUSINESS STUDIES

- 1. Objectives and Levels of Management, Coordination
- 2. Fayol's and Taylor's Principles of Management
- 3. Dimensions of Business Environment
- 4. Types of Plans
- 5. Organizational Structure
- 6. Delegation and Decentralization
- 7. Recruitment and Selection
- 8. Leadership, Motivation and Communication.
- 9. Financial Decisions,
- 10. Money Market and Capital Market, SEBI,
- 11. Marketing Mix, Physical Distribution, Public Relation,
- 12. Rights and Responsibilities of Consumers and Redressal machinery.

Directorate of Education Govt. of NCT of Delhi Class XII History Must Do Topics

Chapter 1. Bricks, Beads and Bones: The Harappan Civilisation

- i. Agricultural technologies
- ii. Urban planning and Drainage system
- iii. Tracking Social Differences through burials and luxuries items
- iv. Craft production and strategies for procuring raw materials
- v. Contact with distant lands
- vi. Seals, Script, palaces and kings
- vii. End of the Civilisation
- viii. Cunningham's confusion

Chapter 2. Kings, Farmers and Towns

- i. The Earliest States and First amongst the sixteen: Magadha
- ii. Sources and the administration of the Mauryan Empire
- iii. Popular perceptions of kings
- iv. Strategies for increasing production
- v. Land grants
- vi. Trade, Coins and kings
- vii. Limitations of Inscriptional Evidence

Chapter 3. Kinship, Caste and Class

- i. The Critical Edition of the Mahabharata
- ii. The ideal of patriliny
- iii. Rules of marriage and Gotra
- iv. Chaturvarna and Duties of Chandals
- v. Non-Kshatriya kings
- vi. Access to property
- vii. Authors, Language and content of Mahabharata

Chapter 4. Thinkers, Beliefs and Buildings

- i. Sanchi and Amravati Stupa: Preservation and structure
- ii. Jainism an Buddhism: Teachings
- iii. Sculpture and Popular traditions
- iv. The development of Mahayana Buddhism
- v. The growth of Puranic Hinduism

Chapter 5 Through the Eyes of Travellers

- i. Al-Biruni and the Kitab-ul-Hind, Overcoming barriers to understanding, Al-Biruni's description of the caste system
- ii. Ibn Battuta: An early globe-trotter, A unique system of communication, Women Slaves, Sati and Labourers
- iii. François Bernier: The question of landownership

Chapter 6 Bhakti-Sufi Traditions

- i. Early Traditions of Bhakti, Attitudes towards caste, Women devotees
- ii. The Virashaiva Tradition
- iii. The Growth of Sufism: Khanqahs and silsilas, Sufis and the state

iv. Kabir, Baba Guru Nanak

Chapter 7 An Imperial Capital Vijayanagara

- i. The apogee and decline of the empire
- ii. The amara-nayaka system
- iii. Water resources, Fortifications and roads
- iv. The mahanavami dibba
- v. Gopurams and mandapas

Chapter 8 Peasants, Zamindars and the State

- i. An abundance of crops
- ii. Panchayats and headmen, Jati Panchayat
- iii. A little republic
- iv. Women in Agrarian Society
- v. The Zamindars
- vi. Land Revenue System
- vii. The Ain-i Akbari of Abu'l

Chapter 10 Colonialism and the Countryside

- i. The Permanent Settlement
- ii. Why zamindars defaulted on payments
- iii. The rise of the jotedars
- iv. The Fifth Repor
- v. The Pahariyas versus The Santhals
- vi. The cotton boom
- vii. The Decean Riots

Chapter 11 Rebels and the Raj

- i. Lines of communication
- ii. Rumours and prophecies
- iii. Firangi raj and Awadh
- iv. The vision of unity
- v. The search for alternative power
- vi. Images of the Revolt

Chapter 13 Mahatma Gandhi and the Nationalist Movement

- i. The Non-cooperation Movement
- ii. The Salt Satyagraha
- iii. The Quit India Movement
- iv. Knowing Gandhi

Chapter 15 Framing the Constitution

- i. A Tumultuous Time
- ii. Opinions expressed by the public
- iii. The dominant voices
- iv. Objectives Resolution
- v. The Powers of the State
- vi. The Language of the Nation

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Must do topics of Geography class 12

पाठ्य पस्तक 1 :- मानव भूगोल के मूल सिध्दांत

अध्याय का नाम (name of chapter)	मुख्य बिन्दु(main topic)
। मानव भूगोल प्रकृति एंव विषय क्षेत्र	1 मानव और प्रकृति का संबध
	2 निश्चयवाद, संभववाद, नवनिश्चयवाद की विचारधाराएँ
	3 मानव भूगोल के उपागम और शाखाएँ
2 विश्व जनसंख्या	। जनसंख्या वितरण और घनत्व की अवधारणा
	2 जनसंख्या वितरण को प्रभावित करने वाले कारक
	3 जनसंख्या वृध्दि के घटक , प्रवास के अपकर्ष, प्रतिकर्ष कारक
	4 जनाकिकीय संक्रमण सिध्दात, जनसंख्या नियन्त्रण के उपाय
3 मानव विकास	1 वृध्दि और विकास में अंतर
	2 मानव विकास को अवधारणा आर साथक जविन 3 मानव विकास के प्राप्तव स्तंभ
	4 मानव विकास के प्रमुख उपांगम
	5 मानव विकास की अंतर्राष्ट्रीय तुलनाएँ
	6 मानव विकास सूचकांक ,मानव गरीबी सूचकांक
4 प्राथमिक क्रियाएँ	
	ा भाजन संग्रहण आर आखट , चलवासा पशुचारण, 2 वाणिज्य पशुधन पालन
	3 आदिकालीन जीवन निर्वाह कृषि, रोपण कृषि, मिश्रित कृषि
	डेरी कृषि ,बाजार के लिए सब्जी खेती, सहकारी और सामूहिक कृषि
	4 खनन और खनन की विधिया, प्रभावित करने वाले कारक
5 दिव्तीयक क्रियाएँ	 आधनिक बडे पैमाने पर होने वाले विनिर्माण की विशेषताएँ
	2 उध्योगो की स्थिति को प्रभावित करने वाले कारक
	3 उध्योगो का वर्गीकरण
	4 उच्च प्रौधोगिकी उध्योगो की संकल्पना
6 तृतीयक और चतुर्थ क्रियाकलाप	1 तृतीयक क्रियाकलापों के प्रकार और उदाहरण
	2 ग्रामीण विपणन केंद्र, नगरीय विपणन केंद्र और आवधिक बाजार
	3 फुटकर व्यापार और थोक व्यापार
	4 सेवा क्षेत्र और उसका महत्व ,तृतीयक क्रियाओं मे संलग्न लोग
	5 पर्यटन व पर्यटन को प्रभावित करने वाले कारक
	6 चतुर्थक और पंचम क्रिया कलाप, अंकीय विभाजन
7 परिवहन और संचार	। पार साइबेरियन ,पार कनेडियन, पार आस्ट्रेलियन रेलमार्ग
	2 स्वेज नहर, पनामा नहर, राइन जलमार्ग
	3 वायु परिवहन और उपग्रह संचार व साइबर स्पेस
8 अंतर्राष्ट्रीय व्यापार	। अंतर्राष्ट्रीय व्यापार के आधार व अंतर्राष्ट्रीय व्यापार के प्रकार
	2 विश्व व्यापार संगठन ,अंतराष्ट्रीय व्यापार कब हानिकारक हो सकता है
	3 पत्तन अन्तर्राष्ट्रीय व्यापार के प्रवेश द्वार - पत्तनो के प्रकार
पाठ्य पुस्तक 2 भारत	लोग और अर्थव्यवस्था
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। भारत में जनसंख्या के स्थानिक वितरण मे भिन्नता के कारण 2 भारत में जनसंख्या वृध्दि की प्रमुख प्रावस्थाएँ 3 भारत में किशोर जनसंख्या व उसकी समस्याएँ
2 भारत में जनसंख्या वृष्ट्वि का प्रमुख प्रावस्थाए 3 भारत में किशोर जनसंख्या व उसकी समस्याएँ
4 राष्टीय यवा नीति, कौशल विकास नीति 2015
्र इ.जनसंख्या का धार्मिक संघटन . तेरी बत्ताओ और बेरी पटाओ
6 जनसंख्या का व्यावसायिक संघटन
। ग्रामीण और नगरीय बस्तियों मे अंतर , बस्तियों के प्रकार
2 बस्तियों के विभिन्न प्रति रूपों के लिए उत्तरदायी कारक
3 भारत में विकास के आधार पर नगरों का वर्गीकरण
4 नगरो का प्रकार्यात्मक वर्गीकरण , स्मार्ट सिटी मिशन के उद्देश्य
<u>।</u> भारत का भमि उपयोग प्रारूप ,भारत मे फसल ऋत्एँ
2 कषि के एकार गेहँ चावल कपास चाय गन्ग जट फमलें
2 मुगद के प्रकार के तू , वावरा, कावरा, वाव, वाव, वाव, वावरा, वाव के वर्षों मे 3 भारत में कृषि का विकास स्वतंत्रता के बाद के वर्षों मे
4 भारतीय कृषि की समस्याएँ, किसान पोर्टल, सतत कृषि के लिए मिशन
। भारत मे जल की बढती माँग, जल प्रदूषण
2 जल प्रबंधन और संरक्षण, जल संरक्षण के वैधानिक उपाय
3 जल संभर प्रबंधन, वर्षा जल संग्रहण
4 भारत की जल नीति 2002, जल क्रान्ति अभियान
। भारत मे खनिजो का वर्गीकरण और उनकी विशेषताएँ
2 भारत मे खनिजो का वितरण
3 लौह अयस्क, कोयला ,अभ्रक, खनिज तेल ,बाक्साइट जैसे खनिज 4. जनित्रों ने पंपल्पा नी निषिधपुन प्रसान
4 खानजा के सरकण का विविधाव सुझाव 5 ऊर्जा के गैर परम्परागत स्रोत ऊर्जा की बचत
। लक्ष्य क्षेत्र नियाजन , पवतीय क्षेत्र विकास कायक्रम, सूखा संभावी क्षेत्र विकास कार्यक्रम
2 भरमोर जनजातीय विकास कार्यक्रम, इन्दिरा गांधी नहर कमान क्षेत्र
3 सतत पोषणीय किकास की संकल्पना
4 सतत पोषणीय विकास को बढावा देने वाले उपाय
। भारत मे सडकों के प्रकार, रेलवे लाइन , रेलों की समस्याएँ
2 कोंकण रेलवे, भारत के प्रमुख राष्ट्रीय जलमार्ग
3 वायु परिवहन, उपग्रह संचार
4 पाइप लाइन परिवहन
। भारत के निर्यात संगठन के बदलते परारूप
2 भारत के आयात संघटन के बदलते प्रारूप
3 भारत के प्रमुख समुन्द्री पत्तन
। पर्यावरण प्रदेषण (जल. वाय. ध्वनि)
2 नगरीय अपशिष्ट का निपटान एक गंभीर समस्या
3 भारत मे गंदी बस्तियों की प्रमुख समस्याएँ
4 भारत में भूमि निम्नीकरण की समस्या प्राकृतिक नही मानवीय है

CHEMISTRY

Unit: Solutions (7 marks)

- Expressions of concentration terms, mole fraction, molarity, molality
- Henry's law and its applications
- Raoult's law and deviation from Raoult's law (with graphical representation and examples), azeotropes
- Colligative properties (Elevation of boiling point, depression in freezing point), osmosis and osmotic pressure, reverse osmosis
- Abnormal molar mass, van't Hoff factor for association and dissociation

Unit: Electrochemistry (9 marks)

- Cell representation and Electrode reactions, Nernst equation (Numerical based on Nernst equation and its application)
- Conductivity and Molar conductivity and their variation with concentration
- Molar conductivity of Strong and Weak electrolytes and their variation with concentration (with graphical representation)
- Kohlrausch law of independent migration of ions and numerical

Unit: Chemical Kinetics (7 marks)

- Rate law and rate constant, units of rate constant, Order of reaction and its calculation using experimental data
- Rate constant for zero and first order reaction and their graphical representation
- Half life of reaction for zero and first order reaction

Unit: The *d*- and *f*-Block Elements (7 marks)

- Electronic configuration, atomic and ionic sizes
- Trends of oxidation states, E° values, Catalytic properties of transition elements and their compounds
- Magnetic properties, Formation of coloured ions and complexes
- Oxidation states in lanthanides, Lanthanoid contraction: cause and consequences

Unit: Coordination Compounds (7 marks)

- Types of ligands and examples, Chelate complexes and chelate effect
- IUPAC nomenclature of coordination compounds
- Hybridisation and geometry of complexes, magnetic behaviour
- Crystal field splitting in octahedral and tetrahedral field



Unit: Haloalkanes and Haloarenes (6 marks)

- Name reactions: Finkelstein reaction, Swarts reaction, Sandmeyer reaction, Wurtz reaction, Fittig reaction. Wurtz-Fittig reaction
- S_N1 and S_N2 reaction: mechanism and reactivity order
- Saytzeff elimination, Grignard reagent

Unit: Alcohols, Phenols and Ethers (6 marks)

- Name reactions: Esterification, Acetylation, Reimer-Tiemann Reaction, Kolbe's reaction, Williamsons synthesis
- Mechanism: acid catalysed hydration, acid catalysed dehydration of alcohol to form alkene and ether, Electrophilic substitution reactions of phenol
- Acidity of phenols and effects of substituents on acidic strength

Unit: Aldehydes, Ketones and Carboxylic Acids (8 marks)

- Name Reactions: Rosenmund reactions, Gattermann-Koch reaction, Clemmensen reduction, Wolf-Kishner reduction Aldol Condensation, Cross Aldol Condensation, Cannizzaro reaction, Hell-Volhard-Zelinsky (HVZ) reaction
- Distinction Tests/Reactions: 2,4-DNP test, Tollens' test, Fehling's test, Iodoform test, NaHCO₃ test
- Nucleophilic addition reactions: General mechanism, addition of ammonia and its derivatives
- Acidity of Carboxylic acids and effects of substituents on acidic strength

Unit: Amines (6 marks)

- Name Reactions: Gabriel phthalimide synthesis, Hoffmann bromamide degradation, Carbylamine reaction
- Distinction Tests/Reactions: Hinsberg test, Azo dye test, Carbylamine test
- Electrophilic Substitution reactions: General mechanism and reactivity of aniline, deactivation with acyl group, inability to undergo Friedel-Crafts reaction
- Basicity of amines and effect of substitution on basic strength in aromatic amines, comparison of basic strength in gaseous and aqueous medium

Unit: Biomolecules (8 marks)

- **Carbohydrates**: Classification of carbohydrates, reactions of D-Glucose, cyclic structure of glucose, glycosidic bond, invert sugar
- **Proteins:** classification and properties, essential and non-essential amino acids, fibrous and globular proteins, peptide linkage, primary, secondary, tertiary and quarternary structure of proteins, denaturation of protein
- Nucleic acid: nucleosides and nucleotides, DNA & RNA : bases, structural and functional differences
- Vitamins: Sources and deficiency diseases

* Topics most frequently asked in exams, for higher scores go through whole syllabus in details.



अनिवार्य विषय-वस्तु बिंदु / MUST DO TOPICS

कक्षा -XII		विषय: गृह विज्ञान (064) सत्र: 2024-2025		
इकाई	अध्याय	अनिवार्य विषय-वस्तु / ध्यान देने योग्य बिंदु		
इकाई । कार्य, आजीविका तथा जीविका	1. कार्य, आजीविका तथा जीविका	 भारत में परम्परागत व्यवसाय स्त्रियों और उनके कार्य से संबंधित मुद्दे और सरोकार के.जी.बी.वी. बेटी बचाओ, बेटी पढाओ योजना सुकार्यिकी (एर्गोनॉमिक्स) उद्यमिता 		
इकाई ॥ पोषण, खाद्य विज्ञान और प्रौद्योगिकी	2. नैदानिक पोषण और आहारिकी	 नैदानिक पोषण आहार के प्रकार: नियमित और संशोधित आहार भोजन देने के तरीके जीविका की तैयारी कार्यक्षेत्र और जीविका के अवसर 		
	3.जन पोषण तथा स्वास्थ्य	 भारत में पोषण संबंधी समस्याएँ प्रोटीन ऊर्जा कुपोषण सूक्ष्मपोषकों की कमी भारत में संचालित पोषण-कार्यक्रम स्वास्थ्य देखभाल 		
	4. खाद्य प्रसंस्करण और प्रौद्योगिकी	 खाद्य संसाधन और प्रौद्योगिकी का विकास खाद्य संसाधन और संरक्षण का महत्त्व खाद्य पदार्थों का वर्गीकरण, संसाधन की सीमा और प्रकार के आधार पर इस क्षेत्र में जीविका के लिए ज्ञान, कौशल और जीविका के अवसर 		
	5. खाद्य गुणवत्ता और खाद्य सुरक्षा	 खाद्य सुरक्षा -महत्त्व खाद्य सुरक्षा (आविषालुता और संकट: भौतिक, रासायनिक और जैविक) खाद्य संक्रमण और विषाक्तता भारत में खाद्य मानक नियमन-FSSA (2006) कोडेक्स एलिमेंटैरियस कमीशन अंतर्राष्ट्रीय मानकीकरण संगठन विश्व व्यापार संगठन खाद्य सुरक्षा प्रबंधन प्रणालियाँ 		
इकाई ॥॥ मानव विकास और परिवार अध्ययन	6. प्रारंभिक बाल्यावस्था देखभाल और शिक्षा	 ई.सी.सी.ई. के उद्देश्य विद्यालय-पूर्व शिक्षा का महत्त्व एन.सी.एफ 2005 द्वारा ई.सी.सी.ई. के मार्गदर्शी सिद्धांत इस क्षेत्र में जीविका के लिए ज्ञान और कौशल तथा जीविका के अवसर 		
	7. बच्चों, युवाओं और वृद्धजनों के लिए कार्यक्रमों का प्रबंधन	 संवेदनशील समूह - बच्चे, युवा और वृद्धजन संस्थाएँ, कार्यक्रम और पहल इस क्षेत्र में जीविका के लिए ज्ञान और कौशल तथा जीविका के अवसर 		

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इकाई	अध्याय	अनिवार्य विषय-वस्तु / ध्यान देने योग्य बिंदु	
इकाई IV वस्त्र एवं परिधान	8. वस्त्र एवं परिधान के लिए डिज़ाइन	 डिज़ाइन के तत्त्व- रंग, रेखा, आकृतियाँ या आकार डिजाइन के सिद्धांत - अनुपात, महत्त्व, आवर्तिता 	
	9. फ़ैशन डिजाइन और व्यापार	 फ़ैशन शब्दावली- फ़ैशन, शैली, फैड्स, चिरसम्मत (क्लासिक) फ़ैशन व्यापार फ़ैशन के खुदरा संगठन इस क्षेत्र में जीविका के लिए ज्ञान और कौशल कार्यक्षेत्र और जीविका के अवसर 	
	10. संस्थाओं में वस्त्रों की देखभाल और रखरखाव	> धुलाई के उपकरण > सुखाने के उपकरण > इस्तरी / प्रेस करने के उपकरण > होटल और अस्पतालों में धुलाई के तरीके, विशेषताएँ व अंतर > इस क्षेत्र में जीविका के लिए ज्ञान और कौशल तथा जीविका के अवसर	
इकाई ∨ संसाधन प्रबंधन	11. आतिथ्य प्रबंधन	 आतिथ्य सेवाएँ देने वाले प्रतिष्ठानों के प्रकार आतिथ्य प्रबंधन में सम्मिलित विभागों के नाम, कार्य /भूमिका इस क्षेत्र में जीविका के लिए ज्ञान और कौशल व कार्यक्षेत्र 	
	12. उपभोक्ता शिक्षा और संरक्षण	 उपभोक्ता शिक्षा और संरक्षण का महत्त्व उपभोक्ता समस्याएँ उपभोक्ता अधिकार उपभोक्ता संगठन उपभोक्ता के दायित्व कार्यक्षेत्र और जीविका के अवसर 	
इकाई VI संचार और विस्तार	13. विकास संचार और पत्रकारिता	 विकास, संचार और पत्रकारिता से संबंधित अवधारणाएँ संचार की विधियाँ व उनके उदाहरण अभियान रेडियो तथा टेलीविज़न मुद्रण माध्यम (प्रिंट मीडिया) सूचना और संचार प्रौद्योगिकी इस क्षेत्र में जीविका के लिए ज्ञान और कौशल विकास संचार में कार्यक्षेत्र और जीविका के अवसर 	

निर्धारित पाठ्य पुस्तक : गृह विज्ञान (064) कक्षा 12 के लिए - NCERT द्वारा मानव पारिस्थितिकी एवं परिवार विज्ञान- भाग-1 - <u>https://ncert.nic.in/textbook.php?lehh1=0-10</u> मानव पारिस्थितिकी एवं परिवार विज्ञान- भाग-II - <u>https://ncert.nic.in/textbook.php?lehh2=0-15</u>

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संस्कृतम् (कोड-322)

कक्षा– द्वादशी, सत्र– 2024-25

- अपठित गद्यांशः
 - भाषिक– कार्य
 - कर्तृक्रिया–अन्वितिज्ञान
 - विशेष्यविशेषण
 - पर्याय–विलोमपद चयन
 - शीर्षक निकालना
- रचनात्मक लेखनम्
 - पत्र लेखन
 - लघुकथापूर्ति
 - वार्तालाप में एक संवाद को पूर्ण करना।
 - संस्कृत भाषा में अनुवाद
- अनुप्रयुक्त–व्याकरणम्
 - सन्धिः
 - समास-विग्रह
 - प्रत्यय
 - कारक-उपपदविभक्तिप्रयोग
- पठित–अवबोधनम्

गद्य	पद्य	नाट्य
अनुशासनम्	सूक्तिसुधा	मातुराज्ञा गरीयसी
दौवारिकस्य निष्ठा	प्रजानुरञ्जको नृपः	मदालसा
नैकेनापि समं गता वसुमती	सूक्तिसौरभम् कार्याकार्यव्यवस्थतिः	

घ भागः

- भास्वती पाठ्यपुस्तक के पाठ सन्दर्भ, उनके रचयिता, तथा उनकी रचनाएं

- महाकाव्य, गद्यकाव्य, चम्पूकाव्य
- नाट्यतत्व की मुख्य विशेषताओं का परिचय