

## CLASS XII (Month Wise)



S.NO.	MONTH	CHAPTER	PRACTICALS/ ACTIVITIES
1.	APRIL	UNIT – 1: ELECTROSTATICS <ul style="list-style-type: none"> <li>CHAPTER – 1 : ELECTRIC CHARGES AND FIELDS.</li> <li>CHAPTER – 2 ELECTROSTATIC POTENTIAL AND CAPACITANCE.</li> </ul>	1. TO DETERMINE RESISTIVITY OF TWO/THREE WIRES BY PLOTTING A GRAPH FOR POTENTIAL DIFFERENCE VERSUS CURRENT.
2.	MAY	UNIT – 1: ELECTROSTATICS	2. TO DETERMINE ANGLE OF MINIMUM DEVIATION FOR A GIVEN PRISM BY PLOTTING A GRAPH BETWEEN INCIDENT ANGLE & ANGLE OF DEVIATION. 3. TO FIND RESISTANCE OF A GIVEN WIRE USING METER BRIDGE.
3.	JULY	<ul style="list-style-type: none"> <li>CHAPTER – 2 ELECTROSTATIC POTENTIAL AND CAPACITANCE.</li> </ul> UNIT – 2 : CURRENT ELECTRICITY <ul style="list-style-type: none"> <li>CHAPTER – 3 CURRENT ELECTRICITY.</li> </ul> UNIT – 3 : MAGNETIC EFFECTS OF CURRENT AND MAGNETISM <ul style="list-style-type: none"> <li>CHAPTER – 4 MOVING CHARGES AND MAGNETISM.</li> </ul>	4. TO FIND FOCAL LENGTH OF A CONVEX LENS BY PLOTTING GRAPHS BETWEEN $u$ and $v$ OR BETWEEN $1/u$ and $1/v$ .  <u>ACTIVITY 1</u> : TO ASSEMBLE THE COMPONENTS OF A GIVEN ELECTRICAL CIRCUIT.  5. TO VERIFY LAWS OF COMBINATION (SERIES/PARALLEL) OF RESISTANCES USING METER BRIDGE.  .  <u>ACTIVITY 2</u> : TO ASSEMBLE A GIVEN HOUSEHOLD CIRCUIT.
4.	AUGUST	UNIT – 3 <ul style="list-style-type: none"> <li>CHAPTER – 5 MAGNETISM AND MATTER.</li> </ul>	6. TO FIND THE VALUE OF $v$ FOR DIFFERENT VALUES OF $u$ IN CASE OF A

		<p>UNIT – 4 : ELECTROMAGNETIC INDUCTION AND ALTERNATING CURRENTS</p> <ul style="list-style-type: none"> <li>CHAPTER – 6</li> </ul> <p>ELECTROMAGNETIC INDUCTION.</p> <p>UNIT – 4</p> <ul style="list-style-type: none"> <li>CHAPTER- 7</li> </ul> <p>ALTERNATING CURRENT.</p> <p>UNIT – 5: ELECTROMAGNETIC WAVES</p> <ul style="list-style-type: none"> <li>CHAPTER – 8</li> </ul> <p>ELECTROMAGNETIC WAVES.</p> <p>UNIT – 6: OPTICS</p> <ul style="list-style-type: none"> <li>CHAPTER – 9</li> </ul> <p>RAY OPTICS AND OPTICAL INSTRUMENTS. (till refraction through prism).</p> <p>UNIT – 6</p> <ul style="list-style-type: none"> <li>CHAPTER – 9</li> </ul> <p>RAY OPTICS AND OPTICAL INSTRUMENTS.</p> <hr/> <p>CHAPTER – 10</p> <p>WAVE OPTICS.</p>	<p>CONCAVE MIRROR AND TO FIND FOCAL LENGTH.</p> <p>7. TO DETERMINE RESISTANCE OF A GALVANOMETER BY HALF – DEFLECTION METHOD AND TO FIND ITS FIGURE OF MERIT.</p>
5.	SEPTEMBER		<p><u>ACTIVITY 3</u> : TO MEASURE RESISTANCE, VOLTAGE, CURRENT &amp; CHECK THE CONTINUITY OF A CIRCUIT USING MULTIMETER.</p> <p>8. TO FIND THE FOCAL LENGTH OF A CONVEX MIRROR, USING A CONVEX LENS.</p> <p><u>ACTIVITY 4</u>: DIFFRACTION THROUGH THIN SLIT</p> <p><u>ACTIVITY 5</u>: TO OBSERVE REFRACTION &amp; LATERAL DEVIATION OF A BEAM OF LIGHT INCIDENT OBLIQUELY ON A GLASS SLAB.</p> <p><u>ACTIVITY 6</u>: TO IDENTIFY DIODE, AN LED, A TRANSISTOR, AN 'IC', RESISTOR &amp; CAPACITOR FROM A MIXED COLLECTION OF SUCH ITEMS.</p> <p>09. TO DRAW THE I-V CHARACTERISTIC CURVE FOR A P-N JUNCTION DIODE IN FORWARD AND REVERSE BIAS.</p> <p>10. TO CONVERT GIVEN GALVANOMETER (OF KNOWN RESISTANCE &amp; FIGURE OF MERIT) INTO VOLT METER OF DESIRED RANGE AND TO VERIFY THE SAME. OR TO CONVERT GIVEN GALVANOMETER (OF KNOWN RESISTANCE</p>
6.	OCTOBER	<p>UNIT – 7 : DUAL NATURE OF RADIATION AND MATTER</p> <ul style="list-style-type: none"> <li>CHAPTER – 11</li> </ul> <p>DUAL NATURE OF RADIATION AND MATTER.</p> <p>UNIT_8</p> <p>CHAPTER 12 ATOMS</p> <p>CHAPTER 13 NUCLEI</p>	
7.	NOVEMBER	<p>UNIT – 9 : ELECTRONIC DEVICES</p> <ul style="list-style-type: none"> <li>CHAPTER – 14</li> </ul> <p>SEMICONDUCTOR ELECTRONICS.</p>	

			& FIGURE OF MERIT) IN TO AMMETER OF DESIRED RANGE AND TO VERIFY THE SAME
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## **CHEMISTRY (043)**

Sr.No.	Month	Chapter's Name
1.	April	<b>Solutions:</b> Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties relative lowering of vapour pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor
2.	May	<b>Electrochemistry:</b> Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion.
3.	July	<b>Chemical Kinetics:</b> Rate of a reaction(Average and instantaneous),factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life(only for zero and first orderreactions),concept of collision theory(elementary idea, no mathematical treatment),activation energy, Arrhenius equation.  <b>Dandf Block Elements :</b> General introduction, electronic configuration ,occurrence and characteristics of transition metals, general trends in properties of the first row transition metals - metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> and KMnO <sub>4</sub> .Lanthanoids Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences. Actinoids Electronic configuration, oxidation states and comparison with lanthanoids.
4.	August	<b>Coordination Compounds:</b> Coordination compounds Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, importance of coordination compounds(inqualitative analysis, extraction of metals and biological system). Haloalkanes and Haloarenes. Haloalkanes: Nomenclature, nature of C-X bond, physical and chemical properties, optical rotation mechanism of substitution

		<p>reactions.</p> <p>Haloarenes: Nature of C-X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.</p>
5.	September	<p><b>Alcohols Phenols and Ethers Alcohols:</b>  Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol.  Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions uses of phenols.</p> <p>Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses.</p> <p>Aldehydes, Ketones and Carboxylic Acids  Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses.</p> <p>Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.</p>
6.	October	<p><b>Amines:</b>  Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines</p>
7.	November	<p><b>Amines contd Diazonium salts:</b> Preparation, chemical reactions and importance in synthetic organic chemistry.</p> <p><b>Biomolecules:</b> Carbohydrates Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen) Importance of carbohydrates.</p> <p>Proteins -Elementary idea of amino acids, peptide bond, polypeptides, proteins, structure of protein primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes. Hormones - Elementary idea excluding structure.</p> <p>Vitamins-Classification and functions. Nucleic Acids: DNA and RNA.</p>

## **MATHEMATICS (041)**

<b>S. NO.</b>	<b>MONTH</b>	<b>CONTENT</b>
1.	<b>APRIL</b>	<ul style="list-style-type: none"><li>• <b>Relations and Functions</b></li></ul>
2.	<b>MAY</b>	<ul style="list-style-type: none"><li>• <b>Inverse Trigonometric Functions</b></li><li>• <b>Matrices</b></li></ul>
3.	<b>JULY</b>	<ul style="list-style-type: none"><li>• <b>Determinants.</b></li><li>• <b>Continuity.</b></li></ul>
4.	<b>AUGUST</b>	<ul style="list-style-type: none"><li>• <b>Differentiability.</b></li><li>• <b>Application of derivatives</b></li></ul>
5.	<b>SEPTEMBER</b>	<ul style="list-style-type: none"><li>• <b>Integrals.</b></li><li>• <b>Applications of integrals</b></li></ul>
6.	<b>OCTOBER</b>	<ul style="list-style-type: none"><li>• <b>Differential Equations</b></li><li>• <b>Vectors Algebra</b></li></ul>
7.	<b>NOVEMBER</b>	<ul style="list-style-type: none"><li>• <b>Three -Dimensional Geometry.</b></li><li>• <b>Probability</b></li></ul>
8.	<b>DECEMBER</b>	<ul style="list-style-type: none"><li>• <b>REVISION</b></li></ul>

## **APPLIED MATHEMATICS (241)**

<b>S. NO.</b>	<b>MONTH</b>	<b>CONTENT</b>
1.	<b>APRIL</b>	<ul style="list-style-type: none"><li>• <b>Number Quantification and Numerical Application.</b></li></ul>
2.	<b>MAY</b>	<ul style="list-style-type: none"><li>• <b>Numerical Inequalities.</b></li><li>• <b>Linear Programming.</b></li></ul>
3.	<b>JULY</b>	<ul style="list-style-type: none"><li>• <b>Matrices</b></li><li>• <b>Determinants</b></li></ul>
4.	<b>AUGUST</b>	<ul style="list-style-type: none"><li>• <b>Differentiation</b></li><li>• <b>Applications of Derivatives</b></li></ul>
5.	<b>SEPTEMBER</b>	<ul style="list-style-type: none"><li>• <b>Integrals</b></li><li>• <b>Differential Equations</b></li></ul>
6.	<b>OCTOBER</b>	<ul style="list-style-type: none"><li>• <b>Perpetuity, sinking Fund and EMI</b></li><li>• <b>Returns, Growth and Depreciation</b></li></ul>
7.	<b>NOVEMBER</b>	<ul style="list-style-type: none"><li>• <b>Probability</b></li><li>• <b>Infretial Statistics</b></li><li>• <b>Time- Based Data</b></li></ul>
8.	<b>DECEMBER</b>	<ul style="list-style-type: none"><li>• <b>REVISION</b></li></ul>

## **BIOLOGY (044)**

<b>Sr.No.</b>	<b>Month</b>	<b>Chapter's Name</b>
1.	April	1. Sexual Reproduction in flowering Plants
2.	May	2. Human Reproduction 3. Reproductive Health 4. Microbes in human welfare
3.	July	5. Human Health and Disease 6. Organisms and Populations
4.	Aug.	7. Ecosystem 8. Biodiversity and its Conservation
5.	Sept.	9. Biotechnology – Principles and Processes 10. Applications of Biotechnology 11. Principles of Inheritance
7.	Oct.	12. Molecular Basis of Inheritance
8.	Nov.	13. Evolution

## **ECONOMICS (030)**

<b>Sr. No.</b>	<b>Month</b>	<b>Chapter's Name</b>
1.	April	<ul style="list-style-type: none"><li>• Circular flow of Income</li><li>• Basics Concepts of Macroeconomics</li><li>• Indian Economy on the Eve of Independence</li></ul>
2.	May	<ul style="list-style-type: none"><li>• National Income and Related Aggregates</li><li>• Money</li><li>• Banking</li></ul>
3.	July	<ul style="list-style-type: none"><li>• Methods of Calculating National Income</li><li>• Indian Economy (1950-1990)</li></ul>
4.	August	<ul style="list-style-type: none"><li>• Aggregate Demand and Related Concepts</li><li>• Income Determination and Multiplier</li><li>• Liberalisation, Privatisation and Globalisation : An Appraisal</li></ul>
5.	September	<ul style="list-style-type: none"><li>• Excess Demand and Deficient Demand</li><li>• Rural Development</li><li>• Human Capital Formation</li></ul>
6.	October	<ul style="list-style-type: none"><li>• Government Budget and the Economy</li><li>• Foreign Exchange Rate</li></ul>
7.	November	<ul style="list-style-type: none"><li>• Balance of Payment</li><li>• Employment : Growth, Informalisation and other issues</li><li>• Environment and Sustainable Development</li><li>• Comparative Development Experience of India and it's Neighbours</li></ul>
8.	December	Revision

## HISTORY (027)

Sr.no	Month	Chapter	Activity
1.	April	<b>Themes in Indian History I</b> Chapter-1 Bricks, Beads and Bones. The Harappan Civilisation	Map-Work Mature and Harappan sites.
2.	May	<b>Themes in Indian History II</b> Chapter-5 Through the Eyes of Travellers. Perceptions of society. <b>Themes in Indian History III</b> Chapter-9 Colonialism and the Countryside.	
3.	July	<b>Themes in Indian History I</b> Chapter-2 Kings, Farmers and Towns. Early states and economies. <b>Themes in Indian History II</b> Chapter-6 Bhakti Sufi Traditions.	Map-Work sixteen Mahajanpadas.
4.	August	<b>Themes in Indian History I</b> Chapter-3 Kinship, Caste and Class. <b>Themes in Indian History III</b> Chapter-10 Rebels and The Raj. 1857 Revolt and its Representations.	A PPT in implication of SHRIMAD BHAGWAT GITA in morden life.
5.	September	<b>Themes in Indian History II</b> Chapter-7 An Imperial Capital Vijaynagara. <b>Themes in Indian History III</b> Chapter-11 Mahatma Gandhi and The Nationalist Movement.	
6.	October	<b>Themes in Indian History I</b> Chapter-4 Thinkers, Beliefs and Buildings. <b>Themes in Indian History II</b> Chapter-8 Peasants,Zamindars and The State.	
7.	November	<b>Themes in Indian History III</b> Chapter-12 Framing The Constitution.	Debate.
8.	December	Pre-board Examinations.	

## GEOGRAPHY (029)

MONTHS	LESSON NAME	ACTIVITY
APRIL 17 Days	Geography: Book-I Fundamental of Human Geography Book-II India People and Economy Book-I L-1 Human Geography-Nature and Scope L-2 The World Population, Distribution, Density and growth Book-II	Prepare a concept Map of the Ch-Human Geography explaining the following: Definition of Human Geog; Nature, Scope, Schools of thought; branches of Human Geog.

	L-1 Population : Distribution, Density Growth and Composition	
MAY 14 Days	Book-II L-1 Population: Distribution, Density, Growth and Composition ( continued) L-2 Human Settlements	
JULY 27 Days	Book-II L-2 Human Settlements (Continued) L-3 Land Resources and Agriculture Book-I L-3 Human Development L-4 Primary Activities	Mark & Label the following on outline World Map: a. Major subsistence areas b. Major Nomadic Herding areas c. Major Commercial livestock rearing areas d. Major areas of extensive commercial grain farming.
AUGUST 22 Days	Book-II L-4 Water Resources L- 5 Mineral and Energy Resources Book-I L-5 Secondary Activities L- 6 Tertiary and Quaternary Activities	
SEPTEMBER 22 Days	Book-I L-6 Tertiary and Quarternary Activities ( continued) Book-II L-6 Planning and Sustainable Development in Indian Context Book -I L- 7 Transport and Communication	Make a list of ten Global brands their logos and products on Activity sheets
OCTOBER 11 Days	Book-I L-7 Transport and Communication( continued) L- 8 International Trade Book-II L-7 Transport and Communication	Make a sketch/Poster about the environmental conditions surrounding an industry
NOVEMBER 20 Days	Book-II L- 7 Transport and Communication (continued) L-8 International Trade L-9 Geographical Perspective on Selected Issues and Problems	
DECEMBER 25 Days (Till PREBOARD)	L- 9 Geographical Perspective on Selected Issues and Problems ( continued)	



## **ACCOUNTANCY (055)**

<b>Month</b>	<b>Syllabus</b>
<b>April</b>	Accounting for Partnership Firms – Fundamentals (Excluding Past Adjustments)
<b>May</b>	Accounting for Partnership Firms – Fundamentals (Past Adjustments) Goodwill: Meaning, Nature, Factor affecting and need for valuation. Methods for Calculation of Goodwill (Average profit, super profit, and capitalization),
<b>July</b>	Admission of a Partner- effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill. Treatment of revaluation of assets and reassessment of liabilities, treatment of reserves, accumulated profits and losses, preparation of capital, current account, and balance sheet, Adjustment of Capital, Change in profit sharing ratio among existing partners.
<b>August</b>	Retirement and Death of a Partner, Dissolution of a Partnership Firm – Meaning, Types, Preparation of Realization account, Accounting for Share Capital.
<b>September</b>	Accounting for Share Capital, Preparation of Balance Sheet, Comparative and Common Size Statements
<b>October</b>	Accounting for Debentures, Financial Statement Analysis: Meaning, Significance, Importance and Limitations
<b>November</b>	Dissolution of a Partnership Firm –Other related accounts, capital accounts of partners and cash/bank a/c, Accounting Ratios, Cash Flow Statements – Meaning, Objectives, Benefits, Cash and Cash Equivalents, Classification of Activities and preparation (as per AS 3 (Revised) (Indirect Method)).
<b>December</b>	<b>REVISION</b>

## **BUSINESS STUDIES (054)**

<b>Sr.no</b>	<b>Month</b>	<b>Chapter</b>
<b>1.</b>	<b>April</b>	Nature and Significance of Management
<b>2.</b>	<b>May</b>	Principles of Management
<b>3.</b>	<b>July</b>	Business Environment Planning
<b>4.</b>	<b>August</b>	Planning (Contd.) Organising Staffing
<b>5.</b>	<b>September</b>	Directing Controlling Financial Management
<b>6.</b>	<b>October</b>	Revision for PT-3 (Half Yearly)
<b>7.</b>	<b>November</b>	Financial Market Marketing Management Consumer Protection

## **ENGLISH (301)**

Month	Flamingo	Vistas	Reading and Writing skills
APRIL	<ul style="list-style-type: none"><li>➤ The Last Lesson</li><li>➤ My Mother at Sixty Six (poem)</li></ul>	<ul style="list-style-type: none"><li>➤ The Third Level</li></ul>	<ul style="list-style-type: none"><li>➤ Reading Comprehension</li><li>➤ Notice writing</li></ul>
MAY	<ul style="list-style-type: none"><li>➤ Lost Spring</li></ul>	<ul style="list-style-type: none"><li>➤ The Tiger King</li></ul>	<ul style="list-style-type: none"><li>➤ Letters to the Editor</li></ul>
JUNE	SUMMER VACATIONS WITH HOME WORK		
JULY	<ul style="list-style-type: none"><li>➤ Deep Water (Flamingo)</li><li>➤ Keeping Quiet (Poem)</li></ul>	<ul style="list-style-type: none"><li>➤ Journey to the End of the Earth</li></ul>	<ul style="list-style-type: none"><li>➤ Job Application</li></ul>
AUGUST	<ul style="list-style-type: none"><li>➤ The Rattrap (Flamingo)</li><li>➤ A Thing of Beauty (Poem)</li></ul>	<ul style="list-style-type: none"><li>➤ The Enemy</li></ul>	<ul style="list-style-type: none"><li>➤ Article Writing</li></ul>
SEPTEMBER	<ul style="list-style-type: none"><li>➤ Indigo</li><li>➤ Poets and Pancakes</li></ul>	<ul style="list-style-type: none"><li>➤ On The Face of it</li></ul>	<ul style="list-style-type: none"><li>➤ Report-Writing</li></ul>
OCTOBER	<ul style="list-style-type: none"><li>➤ The Interview</li><li>➤ A Roadside Stand (Poem)</li></ul>	<ul style="list-style-type: none"><li>➤ Memories of Childhood</li></ul>	<ul style="list-style-type: none"><li>➤ Invitation Writing &amp; Replies</li></ul>
NOVEMBER	<ul style="list-style-type: none"><li>➤ Going Places</li><li>➤ Aunt Jennifer's Tigers (Poem)</li></ul>	Revision and Project	
DECEMBER	REVISION & 1 <sup>st</sup> Pre-Board	REVISION & 1 <sup>st</sup> Pre-Board	REVISION & 1 <sup>st</sup> Pre-Board

## **ARTIFICIAL INTELLIGENT (843)**

Month	Syllabus
April	Part-B Unit:1 Python Programming-II
May	Part-B Unit:2 Data Science Methodology: An Analytic Approach to Capstone Project
July	Part-B Unit-3: Making Machines See
August	Part-B Unit-5: Introduction to Big Data and Data Analytics Part-B Unit-6: Understanding Neural Networks
September	Part-B Unit-7 Generative AI Part-B Unit-8: Data Storytelling
October	Part-B Unit-4: AI with Orange Data Mining Tool Part-A Unit-1: Communication Skills-IV Part-A Unit-2: Self-Management Skills-IV
November	Part-B Unit-4: AI with Orange Data Mining Tool Part-A Unit-3: ICT Skills-IV Part-A Unit-4: Entrepreneurial Skills-IV Part-A Unit-5: Green Skills-IV
December	REVISION

## **COMPUTER SCIENCE (083)**

<b>Month</b>	<b>Syllabus</b>
<b>April</b>	Ch-1 Review of Python Basics
<b>May</b>	Ch-2 Functions
<b>July</b>	Ch-3 Exception Handling Ch-4 Data File Handling
<b>August</b>	Ch-4 Data File Handling
<b>September</b>	Ch-5 Data Structures in Python
<b>October</b>	Ch-7 Relational Database and SQL
<b>November</b>	Ch-7 Relational Database and SQL Ch-8 Interface Python with SQL
<b>December</b>	Ch-8 Interface Python with SQL Ch-6 Computer Networks

## **INFORMATICS PRACTICES (065)**

<b>MONTH</b>	<b>TOPICS/CHAPTERS</b>	<b>LAB WORK</b>
<b>April</b>	Chapter 3 Review of database Concepts and SQL Chapter 4 Database Query using SQL	1. Practical of SQL commands. 2. Practical of single Row functions and Multiple Row Functions
<b>May</b>	Database Query using SQL(cont.)	
<b>July</b>	Chapter 1 Data Handling using Pandas up till comparing the Series	1. Creating Series using series() method 2. Naming a Series 3. Accessing data from a Pandas series 4. Mathematical operations on series. 5. Vector operations 6. Retrieving and deleting elements from a series. 7. Comparing the series.
<b>August</b>	Data Handling using Pandas contd. Data Visualization using Matplotlib	8. Dataframe Creation. 9. Iterations in dataframe 10. Binary operations 11. Combining data frame 12. Boolean indexing 13. CSV file
<b>September</b>	Chapter 5 Computer Networks	Practical implementation of Matplotlib
<b>October</b>	Societal Impacts	
<b>November</b>	Revision of entire syllabus	

## **PHYSICAL EDUCATION (048)**

APRIL	<b>Chapter-1 Management of Sporting Events</b> <ul style="list-style-type: none"> <li>• Functions of Sports Events Management (Planning, Organising, Staffing, Directing &amp; Controlling)</li> <li>• Various Committees &amp; their Responsibilities (pre; during &amp; post)</li> <li>• Fixtures and their Procedures – Knock Out (Bye &amp; Seeding) &amp; League (Staircase, Cyclic, Tabular method) and Combination tournaments</li> <li>• Intramural &amp; Extramural tournaments – Meaning, Objectives &amp; Its Significance</li> <li>• Community sports program (Sports Day, Health Run, Run for Fun, Run for Specific Cause &amp; Run for Unity)</li> </ul>
MAY	<b>Chapter-2 Children &amp; Women in Sports</b> <ul style="list-style-type: none"> <li>• Exercise guidelines of WHO for different age groups</li> <li>• Common postural deformities-knock knees, flat foot, round shoulders, Lordosis, Kyphosis, Scoliosis, and bow legs and their respective corrective measures</li> <li>• Women's participation in Sports – Physical, Psychological, and social benefits</li> <li>• Special consideration (menarche and menstrual dysfunction)</li> <li>• Female athlete triad (osteoporosis, amenorrhea, eating disorders)</li> </ul>
JULY	<b>Chapter-3 Yoga as Preventive measures for Lifestyle Disease</b> <ul style="list-style-type: none"> <li>• <b>Obesity:</b> Procedure, Benefits &amp; Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama</li> <li>• <b>Diabetes:</b> Procedure, Benefits &amp; Contraindications for Katichakrasana, Pavanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana, Supta - vajarasana, Paschimottanasana -a, Ardha - Matsyendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati</li> <li>• <b>Asthma:</b> Procedure, Benefits &amp; Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasan - a, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalabhati, Gomukhasana Matsyaasana, Anuloma -Viloma</li> <li>• <b>Hypertension:</b> Procedure, Benefits &amp; Contraindications for Tadasana, Katichakrasana, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, UttanMandukasan -a, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadi - shodhanapranayam, Sitlipranayam</li> <li>• <b>Back Pain and Arthritis:</b> Procedure, Benefits &amp; Contraindications of Tadasana, Urdhwahastottansana, ArdhaChakrasana, Ushtrasana, Vakrasana, Sarala Matsyendrasana, Bhujangasana, Gomukhasana, Bhadrasana, Makarasana, NadiShodhana pranayama</li> </ul>

JULY	<b>Chapter-4 Physical Education &amp; Sports for CWSN (Children with Special Need - Divyang)</b> <ul style="list-style-type: none"> <li>• Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)</li> <li>• Concept of Classification and Divisioning in Sports</li> <li>• Concept of Inclusion in sports, its need, and Implementation</li> <li>• Advantages of Physical Activities for children with special needs</li> <li>• Strategies to make Physical Activities assessable for children with special needs</li> </ul>
AUGUST	<b>Chapter-5 Sports &amp; Nutrition</b> <ul style="list-style-type: none"> <li>• Concept of balanced diet and nutrition</li> <li>• Macro and Micro Nutrients: Food sources &amp; functions</li> <li>• Nutritive &amp; NonNutritive Components of Diet</li> <li>• Eating for Weight control – A Healthy Weight, The Pitfalls of Dieting, Food Intolerance, and Food Myths</li> <li>• Importance of Diet in Sports-Pre, During and Post competition Requirements</li> </ul>
SEPTEMBER	<b>Chapter-6 Test &amp; Measurement in Sports</b> <ul style="list-style-type: none"> <li>• Fitness Test – SAI Khelo India Fitness Test in school: Age group 5-8 years/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit &amp; Reach flexibility test, Strength Test (Partial Abdominal Curl Up, Push-Ups for boys, Modified Push-Ups for girls)</li> <li>• Measurement of Cardio -Vascular Fitness – Harvard Step Test – Duration of the Exercise in Seconds x100/5.5 X Pulse count of 1 -1.5 Min after Exercise</li> <li>• Computing Basal Metabolic Rate (BMR)</li> <li>• Rikli &amp; Jones - Senior Citizen Fitness Test</li> <li>• Chair Stand Test for lower body strength</li> <li>• Arm Curl Test for upper body strength</li> <li>• Chair Sit &amp; Reach Test for lower body flexibility</li> <li>• Back Scratch Test for upper body flexibility</li> <li>• Eight Foot Up &amp; Go Test for agility</li> <li>• Six -Minute Walk Test for Aerobic Endurance</li> <li>• Johnsen – Methney Test of Motor Educability (Front Roll, Roll, Jumping Half-Turn, Jumping full-turn)</li> </ul>
SEPTEMBER	<b>Chapter-7 Physiology &amp; Injuries in Sports</b> <ul style="list-style-type: none"> <li>• Physiological factors determining components of physical fitness</li> <li>• Effect of exercise on the Muscular System</li> <li>• Effect of exercise on the CardioRespiratory System</li> <li>• Physiological changes due to aging</li> <li>• Sports injuries: Classification (Soft Tissue Injuries - Abrasion, Contusion, Laceration, Incision, Sprain &amp; Strain; Bone &amp; Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted, Transverse Oblique &amp; Impacted)</li> </ul>

OCTOBER	<b>Chapter-8 Biomechanics &amp; Sports</b> <ul style="list-style-type: none"> <li>• Newton's Law of Motion &amp; its application in sports</li> <li>• Types of Levers and their application in Sports</li> <li>• Equilibrium – Dynamic &amp; Static and Centre of Gravity and its application in sports</li> <li>• Friction &amp; Sports</li> <li>• Projectile in Sports</li> </ul>
OCTOBER	<b>Chapter-9 Psychology &amp; Sports</b> <ul style="list-style-type: none"> <li>• Personality; its definition &amp; types (Jung Classification &amp; Big Five Theory)</li> <li>• Motivation, its type &amp; techniques</li> <li>• Exercise Adherence: Reasons, Benefits &amp; Strategies for Enhancing it</li> <li>• Meaning, Concept &amp; Types of Aggressions in Sports</li> <li>• Psychological Attributes in Sports – Self-Esteem, Mental Imagery, Self-Talk, Goal Setting</li> </ul>
NOVEMBER	<b>Chapter-10 Training in Sports</b> <ul style="list-style-type: none"> <li>• Concept of Talent Identification and Talent Development in Sports</li> <li>• Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle</li> <li>• Types &amp; Methods to Develop – Strength, Endurance, and Speed.</li> <li>• Types &amp; Methods to Develop – Flexibility and Coordinative Ability</li> <li>• Circuit Training - Introduction &amp; its importance</li> </ul>

## HINDI (302)

माह	आरोह-2	वितान-2		अभिव्यक्ति और माध्यम
अप्रैल	पद्य आत्म परिचय, एक गीत गद्य- भक्तिन			अपठित गद्यांश एवं पद्यांश पाठ -3
मई	पद्य पतंग गद्य बाजार दर्शन	सिल्वर वैडिंग		अप्रत्याशित लेखन ,पत्र पाठ -4,
जुलाई	पद्य कविता के बहाने, बात सीधी थी पर गद्य काले मेघा पानी दे	जूझ		पाठ-5,11
अगस्त	पद्य कैमरे में बंद अपाहिज, उषा गद्य पहलवान की ढोलक			पाठ-12,13
सितंबर	पद्य बादल राग गद्य शिरीष के फूल	अतीत में दबे पाँव		पुनरावृत्ति
अक्टूबर	पद्य कवितावली, लक्ष्मण मूर्छा और राम का विलाप			पुनरावृत्ति

नवम्बर	पद्य रुबाइयाँ,छोटा मेरा खेत, बगुले के पंख गद्य श्रम विभाजन और जातिप्रथा एवं मेरी कल्पना का आदर्श समाज			पुनरावृत्ति
दिसम्बर	पुनरावृत्ति			

## GENERAL STUDIES (503)

<b>April</b>	Chapter -1 Science, Technology and Society
<b>May</b>	Chapter -2 Contemporary Problems of Indian Society
<b>July</b>	Chapter -3 Cultural Heritage of India
<b>August</b>	Chapter -4 National Struggle for India's Freedom
<b>September</b>	Chapter -5 Constitutional Obligations: Basic Principles of Indian Constitution
<b>October</b>	Revision for Half Yearly
<b>November</b>	Chapter -6 Human Rights
	<b>Art Integrated Project:1</b> Create a slogan in English or Hindi using around 10 words and write it digitally using any suitable App like Canva. Choose any one topic: (i) Education (ii) Gender Discrimination (iii) Unity in Diversity (iv) Child Labour Use any beautiful scenery of Arunachal Pradesh as background. Submit its colour hardcopy in school by 31-07-2025 <b>Projects:2</b> (1) India of My Dream (2) Where do I see myself after five years and how am I going to achieve it ?

## SUPW (500 )

Month	TOPICS
<b>April</b>	BOHO PAINTING LORD GANESHA
<b>May</b>	ABSTRACT ART QUILLING
<b>July</b>	CUBISM GOND ART FLOWER BOUQUET
<b>August</b>	PAPER FLOWER MOSAIC PATTERN SOAP BASKET
<b>September</b>	MOTIFS ART REVISION WORK
<b>October</b>	POSTER OPTICAL ILLUSION WALL HANGING
<b>November</b>	MODERN ART Silhouette Painting
<b>December</b>	CARD <b>REVISION WORK</b>



## **POLITICAL SCIENCE (028)**

<b><u>S.N.</u></b>	<b>Month</b>	<b>Name of the chapter</b>
<b>1.</b>	<b>April</b>	<ul style="list-style-type: none"><li>• Challenges of Nation Building</li></ul>
<b>2.</b>	<b>May</b>	<ul style="list-style-type: none"><li>• The End of Bipolarity</li></ul>
<b>3.</b>	<b>July</b>	<ul style="list-style-type: none"><li>• Era of One Party Dominance</li><li>• Politics of Planned Development</li><li>• Contemporary Centers of Power</li></ul>
<b>4.</b>	<b>August</b>	<ul style="list-style-type: none"><li>• Contemporary South Asia</li><li>• Challenges to and Restoration of the congress system.</li><li>• India's External Relations</li></ul>
<b>5.</b>	<b>September</b>	<ul style="list-style-type: none"><li>• The Crisis of Democratic Order.</li><li>• International Organisations</li><li>• Security in the Contemporary World</li></ul>
<b>6.</b>	<b>October</b>	<ul style="list-style-type: none"><li>• Regional Aspirations</li><li>• Environment and Natural Resources</li></ul>
<b>7.</b>	<b>November</b>	<ul style="list-style-type: none"><li>• Recent developments in Indian politics</li><li>• Globalization</li></ul>
<b>8.</b>	<b>December</b>	REVISION