

## VISHWA BHARTI PUBLIC SCHOOL, NOIDA

Textbook prescribed-

1. English Reader- Hornbill
2. Supplementary Reader- Snapshot

<b>MONTH</b>	<b>BOOK /MAIN SKILL</b>	<b>UNIT/TOPIC</b>
APRIL	HORNBILL  SNAPSHOT  WRITING SKILL	<ul style="list-style-type: none"><li>• The Portrait of a Lady</li><li>• A Photograph (poem)</li><li>• The Summer Of The Beautiful White Horse.</li><li>• Speech writing</li></ul>
MAY	HORNBILL  SNAPSHOT WRITING SKILLS	<ul style="list-style-type: none"><li>• We Aren't Afraid to Die</li><li>• Laburnum Top</li><li>• The Address</li><li>• Poster making</li></ul>
JULY	HORNBILL  WRITING SKILLS	<ul style="list-style-type: none"><li>• Discovering Tut-The Saga Continues</li><li>• The Voice Of The Rain(poem)</li><li>• Classified Advertisements</li></ul>
AUG	HORNBILL  SNAPSHOT  WRITING SKILLS AND GRAMMAR	<p>Adventure</p> <ul style="list-style-type: none"><li>• Father To Son</li><li>• Mother's Day</li><li>• Note-Making and abstractions</li><li>• Integrated Grammar</li></ul>
SEPT	FIRST TERM EXAMINATION	<ul style="list-style-type: none"><li>• Assessment of Speaking &amp; Listening Skills</li></ul>

OCT	HORNBILL WRITING SKILLS AND GRAMMAR	<ul style="list-style-type: none"> <li>• Silk Road</li> <li>• Debate writing</li> <li>• Integrated grammar practice</li> </ul>
NOV	HORNBILL SNAPSHOT WRITING SKILL	<ul style="list-style-type: none"> <li>• Childhood</li> <li>• Birth</li> <li>• Revision.</li> </ul>
DEC	SNAPSHOT HORNBILL WRITING SKILLS & GRAMMAR	<ul style="list-style-type: none"> <li>• The Tale of Melon City</li> <li>• Revision</li> <li>• Comprehension skills(Revision)</li> </ul>
JAN- FEB	REVISION	<ul style="list-style-type: none"> <li>• Revision</li> <li>• Assessment of Speaking &amp; Listening Skills</li> </ul>

**SUBJECT: MATHS****TEXT BOOK PRESCRIBED: NCERT MATHS, EXEMPLAR PROBLEMS IN MATHS**

MONTH	CHAPTER	SUB TOPIC
<b>APRIL</b>	<b>Chapter -1 SETS</b>	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.
	<b>Chapter -2 RELATIONS AND FUNCTIONS</b>	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 (upto $R \times R \times R$ ). 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.
	<b>Chapter-3 TRIGONOMETRIC FUNCTIONS</b>	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
<b>MAY</b>	<b>Chapter -3 TRIGONOMETRIC FUNCTIONS (cntd)</b>	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 $\sin x$ , $\sin y$ , $\cos x$ & $\cos y$ and their simple applications.
	<b>Chapter -4 COMPLEX NUMBERS AND QUADRATIC EQUATIONS</b>	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.
	<b>Chapter -5 LINEAR INEQUALITIES</b>	Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.
<b>JULY</b>	<b>Chapter -6 PERMUTATIONS AND COMBINATIONS</b>	Fundamental principle of counting. Factorial $n$ . $(n!)$ Permutations and combinations, derivation of Formulae for $nPr$ and $nCr$ and their connections, simple applications.
	<b>Chapter -7 BINOMIAL THEOREM</b>	Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.

<b>AUG</b>	<p><b>Chapter -8 SEQUENCES AND SERIES</b></p> <p><b>Chapter – 9 STRAIGHT LINE</b></p>	<p>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.</p> <p>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.</p>
<b>OCT</b>	<p><b>Chapter -10 CONIC SECTIONS</b></p> <p><b>Chapter -11 INTRODUCTION TO THREE- DIMENSIONAL GEOMETRY</b></p>	<p>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.</p> <p>Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.</p>
<b>NOV</b>	<p><b>Chapter-12 LIMITS AND DERIVATIVES</b></p> <p><b>Chapter -13 STATISTICS</b></p>	<p>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 slope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.</p> <p>Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.</p>
<b>DEC</b>	<p><b>Chapter -14 PROBABILITY</b></p>	<p>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.</p>

## SUBJECT: ACCOUNTANCY

Textbook Prescribed: NCERT, Double Entry Bookkeeping (Financial Accounting) T.S. Grewal

Month	Topic	Subtopic
April	<p><b>Unit-1: Theoretical Framework</b></p> <p><b>1. Introduction to Accounting</b></p> <p><b>2. Basic Accounting Terms</b></p> <p><b>3. Theory Base of Accounting</b></p> <p><b>4. Basis of Accounting</b></p>	<p>Accounting- concept, objectives, advantages and limitations, types accounting, information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business</p> <p>Business Transaction, Capital, Drawings, Liabilities (Non- Current and Current). Assets (Non- Current, Current); Fixed assets (Tangible and intangible), Expenditure (Capital and Revenue), Expense, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount)</p> <p>Theory Base of Accounting Fundamental accounting assumptions: GAAP: Concept Business Entity, Money Measurement, Going Concern, Accounting Period, Cost Concept, Dual Aspect, Revenue Recognition, Machinating Full Disclosure, Consistency, Conservatism, Materiality and Objectivity System of Accounting. Accounting Standards: Applicability in Ind AS Goods and Services Tax (GST)</p> <p>Basis of Accounting: cash basis and accrual basis Characteristics and Objective.</p>
May	<p><b>5. Accounting Equation</b></p> <p><b>6.Accounting Procedures: Rules of Debit and Credit</b></p> <p><b>7.Origin of Transactions: Source Documents and preparation of vouchers</b></p>	<p>Accounting Equation Approach: Meaning and Analysis.</p> <p>Rules of Debit and Credit.</p> <p>Recording of Business Transactions Voucher and Transactions: Source documents and Vouchers, Preparation of Vouchers</p>

<p><b>July and August</b></p>	<p><b>Unit-2: Accounting Process</b></p> <p><b>8. Journal</b></p> <p><b>9. Ledger</b></p> <p><b>10. Special Purpose books I-Cash Book</b></p> <p><b>11. Special Purpose books II-Other Books</b></p> <p><b>Ch-12 &amp; 13 GST &amp; Bank Reconciliation Statement</b></p>	<p>Recording of Transactions: Books of Original Entry- Journal</p> <p>Format, Posting from Journal and subsidiary books, Balancing of Accounts.</p> <p>Cash Book: Simple, cash book with bank column and petty cashbook</p> <p>Purchases book Sales book Purchases return book Sales return book Note: Including trade discount, freight and cartage Expenses for simple GST calculation.</p> <p>Need and preparation, Bank Reconciliation Statement with Adjusted Cash Book</p>
<p><b>September and October</b></p>	<p><b>15. Depreciation</b></p>	<p>Depreciation: Concept, Features, Causes, factors</p> <p>Other similar terms: Depletion and Amortization</p> <p>Methods of Depreciation:</p> <ul style="list-style-type: none"> <li>i. Straight Line Method (SLM)</li> <li>ii. Written Down Value Method (WDV)</li> </ul> <p>Note: Excluding change of method</p> <p>Difference between SLM and WDV; Advantages of SLM and WDV</p> <p>Accounting treatment of depreciation</p> <ul style="list-style-type: none"> <li>i. Charging to asset account</li> <li>ii. Creating provision for depreciation/accumulated depreciation account</li> <li>iii. Treatment for disposal of asset</li> </ul>
<p><b>October</b></p>	<p><b>16. Provisions and Reserves</b></p>	<p>Difference</p> <p>Types of Reserves:</p> <ul style="list-style-type: none"> <li>i. Revenue reserve</li> <li>ii. Capital reserve</li> <li>iii. General reserve</li> <li>iv. Specific reserve</li> <li>v. Secret Reserve</li> </ul> <p>Difference between capital and revenue Reserve</p>

	<b>Ch-14 &amp; 17.Trial Balance and Rectification of error</b>	<p>Trial balance and Rectification of Error Trial balance: objectives and preparation (Note: Trial balance with balance method only)</p> <p>Errors: types-errors of omission, commission, Principles, and compensating; their effect on Trial Balance.</p> <p>Detection and rectification of errors; preparation of suspense account</p>
<b>November and December</b>	<p><b>Part B: Financial Accounting - II</b></p> <p><b>Unit 3:</b></p> <p><b>18. Financial Statements of Sole Proprietorship</b></p> <p><b>19. Adjustments in preparation of Financial Statements</b></p> <p><b>20. Accounts for incomplete Records- Single entry System</b></p>	<p>Financial Statements Meaning, objectives and importance; Revenue and finances.</p> <p>Capital Receipts; Revenue and Capital Expenditure; Deferred Revenue expenditure.</p> <p>Trading and Profit and Loss Account: Gross Profit, Operating profit and Net profit. Preparation.</p> <p>Balance Sheet: need, grouping and marshalling of assets and liabilities. Preparation.</p> <p>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.</p> <p>Preparation of Trading and Profit and Loss account and Balance Sheet of a sole proprietorship with adjustments.</p> <p>Incomplete Records Features, reasons and limitations.</p> <p>Ascertainment of Profit/Loss by Statement of Affairs method. Difference between accounts from incomplete records and Statement of Affairs. Preparation of Trading, Profit and Loss account and Balance Sheet.</p>
<b>January</b>		<b>Revision</b>

**SUBJECT-BUSINESS STUDIES TEXT**  
**BOOK PRESCRIBED: NCERT or POONAM GANDHI**

MONTH	UNITS	UNIT & SUBUNIT
APRIL	Part-A: Foundation of Business Unit 1. Evolution and Fundamentals of Business History of Trade and Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities: Merchant Corporation, Major Trade Centres, Major Imports and Exports, Position of Indian Sub-Continent in the World Economy	Concept Economic and non-economic activities Business Risk Objectives of Business Industry Types Commerce and Trade
APRIL – MAY	Unit 2. Forms of Business Organisation	Sole Proprietorship Joint Hindu Family Partnership Co-operative society One Person Company Private Company Vs. Limited Liability Partnership Choice of form of business organization
JULY	Unit 3. Private Public And Global Enterprises  Unit4. Business Services	Private Sector Public Sector Forms of public sector enterprises Changing Role of public sector Global Enterprises.  Business Services Meaning and Types Banking: Types of bank accounts Banking Services – Bank Draft, Bank Overdraft, Cash Credit E Banking – meaning, types of digital payments Insurance: Principles Types of insurance: life, health, fire and marine - concept Discuss the meaning of different types of insurance-life, health, fire, marine insurance.  Postal Service - Mail, Registered Post, Parcel, Speed Post, Courier - meaning

		Understand the utility of different telecom services
AUG	Unit 5 Emerging Modes of Business  Unit 6. Social responsibility of Business and Business Ethics	Emerging Modes of Business E business – concept, scope, benefits Outsourcing concepts: BPO, KPO  Social responsibility of Business and Business Ethics Concept of social responsibility Case for social responsibility Responsibility towards owners, investors, consumers, employees, government and community Appreciate the role of business in environment protection. Business Ethics – Concept and elements
SEPT	Part-B Finance and Trade Unit 7 Formation of a Company.	Formation of a Company Stages in formation of company Documents prepared for formation of a Company.
OCT	Unit 8. Sources of Business Finance.	Concept of Business Finance Types of business finance Owners' funds - equity shares, preferences share, retained earnings, Global Depository receipt (GDR), American Depository Receipt (ADR) and International Depository Receipt (IDR) – concept Borrowed funds: debentures and bonds, loan from financial institution and commercial banks, public deposits, trade credit, Inter Corporate Deposits (ICD) Factors determining choice of source of fund
NOV	Unit 9. Small Scale Business and Enterprises Unit 10. Internal Trade.	-Small Scale Industry - Role Of Govt. -Small Business -Govt. Assistance. -Entrepreneurship Development  Internal Trade. Wholesale Trade and Retail trade. Types of Retailing Role of Indian Chambers of Commerce Documents
DEC	Unit 11 International Business	International Business Nature and Significance. Export Procedure. Import Procedure. Documents. World Trade Organisation
JAN	REVISION	

## SUBJECT: GEOGRAPHY

BOOKS: 1) Fundamentals of Physical Geography

N.C.E.R.T 2) India: Physical Environment

3) Practical Work in Geography – Part 1

MONTHS	CHAPTER	UNIT/SUB UNITS
APRIL	<p>India – Location</p> <p>Geography as a Discipline</p> <p>Structure and Physiography</p>	<p>Location, space relations, India's place in the world.</p> <p>Meaning of geography as an integrating discipline. The fields of geography and its relationship with other disciplines. The approaches to study geography</p> <p>Introduction- The Peninsular block, The Himalaya and other peninsular mountains.</p>
MAY	<p>Structure and Physiography (contd.)</p> <p>The Origin and Evolution of the Earth</p> <p>Drainage System</p> <p>Practical-1</p> <p>Hazards and Disasters (To be tested through internal assessments in the form of project and presentation)</p>	<p>Physiography, The North and North-eastern mountains, The Northern Plains, The Peninsular plateau, The Coastal Plains, The islands.</p> <p>The Big Bang, Planetesimal theory, Nebular Hypothesis related to the origin of the universe.</p> <p>Concept of river basins, watershed; the Himalayan and the Peninsular rivers</p> <p>Maps -types; scales-types; construction of simple linear scale,</p>
JULY	<p>Interior of the Earth</p>	<p>Direct and indirect sources of information about the interior of the earth. Earthquakes—its causes and effects, define: Epicentre, Earthquake waves and its propagation, Shadow zones, Measuring the intensity of earthquakes. The interior structure of the earth. Volcanoes, its types and volcanic landform</p>

	<p>Distribution of seas and oceans</p> <p>Geomorphic Processes</p> <p>Practical-2</p>	<p>Evidence in support of continental drift and force for drifting.</p> <ul style="list-style-type: none"> <li>• Post drift studies, Convectonal current theory, Mapping of the ocean floor, Ocean floor configuration, Concept of seafloor spreading, • Theory of plate tectonics and different types of plate boundaries.</li> <li>• Μοπεμεντο of Indian Plates</li> </ul> <p>-Exogenic and endogenic processes responsible to bring changes in the configuration of the surface of the earth. Differentiate between geomorphic processes and geomorphic agents</p> <ul style="list-style-type: none"> <li>• Factors that affect soil formation.</li> <li>• Define the following terms: Exfoliation, Denudation, Weathering etc.</li> </ul> <p>-Map Scale</p>
AUG	<p>Landform and their Evolution</p> <p>Climate</p> <p>Practical- 3</p>	<p>Erosional and depositional landforms created by different agents like running water, ground water (limestone/Kast topography, glaciers &amp; wind</p> <p>Factors affecting climate of the country and its effect on country's economic life; Annual cycle of four main seasons in India; Causes and problems of climate changes; Concept of Global Warming.</p> <p>Latitudes &amp; longitudes</p>
SEPT	Composition and Structure of Atmosphere	<p>The composition of the atmosphere. Characteristics &amp; the structure of different layers of atmosphere. Elements of weather and climate</p>
REVISION AND TERM1		
OCT	Solar Radiation, Heat Balance and Temperature	<p>Differentiate between solar radiation and terrestrial radiation. Variability of insolation at the surface of the earth. The heat budget of the planet earth. Factors controlling temperature distribution. Inversion of temperature.</p>

	Atmospheric Circulation and Weather Systems	Permanent pressure belts and the prevailing winds. • Explain different types of winds. • Differentiate between tropical and extra tropical cyclones
NOV	<p>Water in the Atmosphere</p> <p>World Climate and Climate Change (To be tested through internal assessments in the form of project and presentation)</p> <p>Water (Oceans)</p> <p>Practical - 4</p>	<p>Introduction – Evaporation and condensation, Dew, Frost &amp; Fog and Mist Cloud and its types, Precipitation Types of rainfall. World distribution of rainfall</p> <p>Classify climate based on various schemes by Koeppen with the help of a mind map. Causes and effects of global warming. Climate changes.</p> <p>-Hydrological cycle, Relief of oceanfloor, features (Midocean ridges, seamounts, submarine canyons, guyots, and atolls) horizontal and vertical distribution of oceanic temperature. Factors affecting the salinity of ocean waters.</p> <p>-Map projection- Latitude, longitude and time, typology, construction and properties of projection: Conical with one standard parallel and Mercator's projection. (Only two projections)</p>
DEC	<p>Movements of Ocean</p> <p>Natural Vegetation</p> <p>Practical-5</p> <p>Practical -6</p>	<p>Differentiate between tides and currents. Formation of sea waves Importance of tide Major Ocean currents and its effects.</p> <p>-Introduction- Types of forests Tropical evergreen forest, Tropical deciduous forest, Tropical thorn forest</p> <p>-Montana forest, Littoral and swampforest.</p> <p>Topographical Maps Introduction to Remote Sensing</p>
JAN	<p>Biodiversity and Conservation (To be tested through internal assessments in the form of project and presentation)</p> <p>REVISION AND TERM2</p>	
FEB	Maps and Project works as per CBSE guidelines.	

**SUBJECT – PSYCHOLOGY**  
**Reference book – Introduction to Psychology part I**

MONTH	UNIT	TOPICS
APRIL	What is psychology?	What is psychology Popular notions about discipline of psychology Understanding mind & behaviour Evolution of psychology Branches of psychology Themes of research & application Psychology and other discipline Psychology at work Psychology in everyday life Development of psychology in India
MAY	Methods of enquiry in Psychology	Goals of psychological enquiry Nature of psychological data Some important methods –observational, experimental and correlation Survey, psychological testing Case study Analysis of data Limitations of psychological enquiry Project 1
JULY	Human development	Meaning of development Factors influencing development Context of development Overview of development stages – Infancy, childhood, challenges of adolescence, adulthood & old age
AUG	Sensory, attentional and perceptual processes	Knowing the world Nature and varieties of stimulus Sense modalities Adaptation Attentional processes Selective and sustained attention Perceptual processes The perceiver Principles of perceptual organization After images, Perceptions of space, depth, and distance Perceptual constancies Illusions, Socio cultural influences on perception
OCT	Learning	Nature of learning Paradigms of learning Classical and operant conditioning, observational, cognitive , verbal, concept, and skill learning Factors facilitating learning Transfer of learning The learner – learning styles Learning disabilities Applications of learning principles PROJECT-2

NOV	Human memory	<p>Nature of memory, Information processing approach</p> <p>Levels of processing</p> <p>Memory systems –sensory, short term and long-term memory</p> <p>Knowledge representation and organization in memory as a constructive process</p> <p>Nature and causes of forgetting Enhancing memory</p>
DEC	Language and thought	<p>Building blocks of thinking Nature and Inter relationship</p> <p>Stages of Cognitive Development Language and Language use Nature of thinking</p> <p>Thought and language</p> <p>Development of language &amp; language use Reasoning</p> <p>Problem solving Decision making</p> <p>Nature and process of creative thinking Developing creative thinking</p>
JAN	Motivation & emotions	<p>Nature of motivation</p> <p>biological motives</p> <p>Social and psychological motives – achievements, affiliation and power</p> <p>Maslow’s hierarchy of needs, Nature of emotions</p> <p>Physiological, cognitive, and cultural bases of emotions</p> <p>Expression of emotions</p> <p>Enhancing positive emotions e.g., happiness optimism</p> <p>Managing negative emotions e.g., anger fear</p>

**SUBJECT: ECONOMICS**

- Books Prescribed: **1. Introduction to statistics N.C.E.R.T**  
**2. Introductory Microeconomics-N.C.E.R. T**  
**3. Elementary statistics-**  
**4. Introductory Microeconomics-**

<b>MONTH</b>	<b>CHAPTER\UNIT</b>	<b>SUBUNIT\TOPIC</b>
APRIL	<b>1</b>	<b>Introduction. (Statistics)</b>  What is Economics?  Meaning and importance, functions and importance of statistics in Economics.
	<b>2a</b>	<b>Collection Organization and Presentation of data</b> <b>Collection of data –</b>  Sources of data- Primary and Secondary; how basic data is collected with concepts of sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organization
MAY	<b>2b</b>	<b>Organization of Data –</b> Meaning and types of variables; Frequency Distribution. <b>Presentation of Data.</b> Tabular Presentation and diagrammatic Presentation of Data:  <b>i. Geometric Form</b> (bar diagrams and pie diagrams) <b>ii. Frequency diagram</b> (histogram, polygon and Ogive) <b>iii. Arithmetic line graphs</b> (time series graph)
	<b>4</b>	<b>Introductory (Microeconomics)</b>  Meaning of microeconomics and macroeconomics; positive and normative economics.  Definition of an economy. Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost.
JULY	<b>3.a</b>	<b>Measures of Central Tendency</b>  Arithmetic Mean, Median and Mode

AUGUST	5	<p><b>Consumer's Equilibrium and Demand</b></p> <p>Consumer's equilibrium - meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis</p> <p>Indifference curve analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of consumer's equilibrium</p> <p>Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve.</p> <p>Price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-change method and total expenditure Method.</p>
SEP	<b>Revision for terminal examination</b>	
OCT	6	<p><b>Producer Behavior and Supply</b></p> <p>Meaning of Production Function – Short-Run and Long-Run.</p> <p>Total Product, Average Product and Marginal Product.</p> <p>Returns to a Factor: Law of Variable Proportions</p> <p>Cost: Short run costs - total cost, total fixed cost, total variable cost; average cost; average fixed cost, average variable cost and marginal cost-meaning and their relationships.</p> <p>Revenue - total, average and marginal revenue - meaning and their relationship.</p> <p>Producer's equilibrium - meaning and its conditions in terms of marginal revenue - marginal cost.</p> <p>Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage-change method.</p>

NOV	7	<p><b>Perfect Competition – Price Determination with simple applications.</b></p> <p>Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply. (Short Run Only)</p> <p>Simple Applications of Demand and Supply: Price ceiling, Price floor.</p>
DEC	3.b	<p><b>Correlation</b> – meaning and properties, scatter diagram; Measures of correlation - Karl Pearson's method (two variables ungrouped data), Spearman's rank correlation (Non-Repeated and Repeated Ranks).</p>
JAN	3.c	<p><b>Introduction to Index Numbers</b> - meaning, types - Wholesale price index, Consumer price index and Index of Industrial production, uses of index numbers; Inflation and Index numbers.</p>
FEB	<b>Revision for Annual Exam</b>	

**SUBJECT: COMPUTER SCIENCE (083)**

**BOOKS PRESCRIBED: PREETI ARORA AND SUMITA ARORA**

**CLASS XI**

<b>MONTH</b>	<b>Unit No/Chapter No</b>	<b>Topic &amp; Subheadings</b>
<b>APRIL</b>	Unit II: Computational Thinking and Programming - I	<ul style="list-style-type: none"><li>• Introduction to problem-solving: Steps for problem-solving (analyzing the problem, developing an algorithm, coding, testing, and debugging). representation of algorithms using flow chart and pseudo code, decomposition</li><li>• 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.</li><li>• 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 operator, augmented assignment operators, identity operators (is, is not), membership operators (in, not in).</li><li>• Expressions, statement, type conversion &amp; input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit &amp; implicit conversion), accepting data as input from the console and displaying output</li></ul> <p>Errors: syntax errors, logical errors, runtime errors</p>
<b>MAY</b>	Unit II: Computational Thinking and Programming - I	<ul style="list-style-type: none"><li>• Flow of control: introduction, use of indentation, sequential flow, conditional and iterative flow control.</li><li>• Conditional statements: if, if-else, if-elf-else; simple programs: e.g.: absolute value, sort 3 numbers, divisibility.</li><li>• Iterative statements: for loop, range function, while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number etc.</li></ul>

<b>JULY</b>	Unit II: Computational Thinking and Programming - I	<ul style="list-style-type: none"> <li>• Strings: introduction, indexing, string operations (concatenation, repetition, membership &amp; slicing), traversing a string using loops, built-in functions: Len(), capitalize(), title(), lower(), upper(), count(), find(), index(), ends with(), starts with(), isalnum(), is alpha(), is digit(), is lower(), is upper(), is space(), strip(), strip(), strip(), replace(), join(), partition(), split().</li> <li>• Lists: introduction, indexing, list operations (concatenation, repetition, membership &amp; slicing), traversing a list using loops, built-in functions: 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 a list of numbers and counting the frequency of elements in a list</li> </ul>
<b>AUGUST</b>	Unit II: Computational Thinking and Programming - I	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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(), del, clear(), from keys(), copy(), pop(), pop item(), set default(), 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.</li> </ul>
<b>SEPTEMBER</b>	<b>TERM 1</b>	
<b>OCTOBER</b>	Unit II: Computational Thinking and Programming - I	Introduction to Python modules: Importing module using 'import' and using from statement, importing math module (pi, e, sqrt(), ceil(), floor(), pow(), fabs(), sin(), cos(), tan()); random module (random(), randint(), Random range()), statistics module (mean(), median(), mode()).
<b>NOVEMBER</b>	Unit 1: Introduction of Computer System	<ul style="list-style-type: none"> <li>• 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).</li> <li>• Types of software: system software (operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler &amp; interpreter), application software. Operating system (OS): functions of</li> </ul>

		<p>operating system, OS user interface.</p> <ul style="list-style-type: none"> <li>• Boolean logic: NOT, AND, OR, NAND, NOR XOR, truth table, De Morgan's laws and logic circuits.</li> <li>• Number system: Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems.</li> <li>• Encoding schemes: ASCII, ISCII and UNICODE (UTF8, UTF32).</li> </ul>
<b>DECEMBER</b>	Unit III: Society, Law and Ethics	<ul style="list-style-type: none"> <li>• Digital Footprints</li> <li>• Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes.</li> <li>• 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).</li> <li>• Cybercrime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cybercrime.</li> <li>• Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls, and bullying.</li> <li>• Safely accessing websites: malware, viruses, trojans, adware.</li> <li>• E-waste management: proper disposal of used electronic gadgets.</li> <li>• Indian Information Technology Act (IT Act)</li> <li>• Technology &amp; Society: Gender and disability issues while teaching and using computers</li> </ul>
<b>JANUARY</b>	Project	<p>Project in Computer science(submission) Revision of the syllabus and lab practice</p>
<b>February</b>	<b>TERM II</b>	

**SUBJECT: PAINTING (049) SYLLABUS**  
**BOOK - FULLMARKS HISTORY OF INDIAN**  
**ART**

<b>MONTH &amp; UNITS</b>	<b>THEORY (ALL TOPICS)</b>	<b>PRACTICAL</b>
<b>APRIL - Unit – I</b>	Six Limbs of Indian Painting & Fundamentals of Visual Arts (Elements and Principles)	Composition (national, religious, cultural, historical and social events)
<b>MAY - Unit – I</b>	Introduction & Prehistoric Rock Paintings and Art of Indus Valley	Composition (national, religious, cultural, historical and social events)
<b>JULY - UNIT I</b>	Prehistoric Rock Paintings - Introduction  Study of the Prehistoric Rock-Paintings	Still life, Drawings from Nature
<b>AUGUST – UNIT I</b>	Introduction & Prehistoric Rock Paintings and Art of Indus Valley: 2. Art of Indus Valley - Introduction 3. Study of the Artefacts of this period	Elements and Principles of composition
<b>SEP-UNIT II</b>	Buddhist, Jain and Hindu Art: 1. The Art during Mauryan, Shunga, Kushana and Gupta Periods. 2. The Art of Ajanta Caves	Object and drawing composition and drawing
<b>OCT – UNIT III</b>	Temple Sculptures, Bronzes and Artistic Aspects of Indo-Islamic Architecture: 1. Artistic Aspects of Indian Temple Sculptures - Introduction 2. Study of Temple-Sculptures	Illustration, still life

<b>NOVEMBER - UNIT III</b>	Temple Sculptures, Bronzes and Artistic Aspects of Indo-Islamic Architecture: 1. Indian Bronze Sculptures - Introduction 2. The Lost-Wax Process (Method of Casting Metal: Solid and Hollow)	Nature and objects study
<b>DEC - UNIT III</b>	Temple Sculptures, Bronzes and Artistic Aspects of Indo-Islamic Architecture: 1. Study of South Indian Bronze 2. Some Artistic Aspects of Indo-Islamic Architecture	Nature study (outdoor), Portfolio Assessment
<b>JAN</b>	Revision of entire syllabus	Portfolio Submission



<p><b>JULY</b></p>	<p><b>UNIT IV : PHYSICAL EDUCATION &amp; SPORTS FOR CWSN (CHILDREN WITH SPECIAL NEEDS- DIVYANG)</b></p>	<p>1 Aims &amp; Objectives of Adaptive Physical Education</p> <p>1 concept of Disability and Disorder</p> <p>1 Types of Disability, its cause and nature ( Intellectual disabilities, Physical disabilities &amp; Learning Disabilities</p> <p>1 Role of Various Professionals for Children With Special Needs</p> <p>(Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist &amp; Special Educator</p> <p>Disability Etiquette</p>
<p><b>AUGUST</b></p>	<p><b>UNIT V : PHYSICAL FITNESS HEALTH &amp; WELLNESS</b></p>	<p>1 Meaning &amp; Importance of Physical Fitness, Health &amp; Wellness</p> <p>1 Components &amp; Dimensions of Physical Fitness, Health &amp; Wellness</p> <p>1 Traditional Sports and Regional Games for promoting wellness</p> <p>Leadership through Physical Activities &amp; sports</p> <p>Inroduction to first Aid-Price</p>
<p><b>OCTOBER</b></p>	<p><b>UNIT VI: TEST, MEASUREMENT &amp; EVALUATION</b></p>	<p>1 Concept of Test, Measurement &amp; Evaluation in Physical Education</p> <p>1 Classification of Test in Physical Education &amp; Sports</p> <p>Test administration guidelines in Physical Education</p> <p>1 Calculation of BMI &amp; Waist - Hip Ratio, Skin Fold Ratio</p> <p>1 Somato Types (Endomorphy, Mesomorphy &amp; Ectomorphy)</p>

		1 Measurement of Health Related Fitness
<b>NOVEMBER</b>	<b>UNIT VII: FUNDAMENTALS OF ANATOMY, PHYSIOLOGY &amp; KINESIOLOGY IN SPORTS</b>	<p>1 Definition and Importance of Anatomy, Physiology in exercises &amp; sports</p> <p>1 Functions of Skeleton System, Classification of Bones &amp; Types of Joints</p> <p>1 Functions &amp; Structure of Circulatory System &amp; HEART</p> <p>Functions &amp; Structure of Respiratory System.</p> <p>Properties &amp; Functions of Muscles</p>
	<b>UNIT VIII: FUNDAMENTALS OF KINESIOLOGY AND BIOMECHANICS IN SPORT</b>	<p>*Definition Importance of Kinesiology &amp; Biomechanics in Sports</p> <p>* Principles of Biomechanics</p> <p>* Types of Body movement – Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination &amp; Pronation</p> <p>* Kinetic Kinematic in Sports</p> <p>* Axis and Planes – Concept &amp; its Application in body movements</p>

<p><b>DECEMBER</b></p>	<p><b>UNIT IX : PSYCHOLOGY &amp; SPORTS</b></p>	<p>1 Definition &amp; Importance of Psychology in Physical Education &amp; Sports</p> <p>1 Team Cohesion and sports</p> <p>1 Developmental Characteristics at Different Stages of Development</p> <p>1 Adolescent Problems &amp; their Management</p> <p>Introduction to Psychological Attributes, Attention, Resilience, Mental toughness</p>
<p><b>JANUARY</b></p>	<p><b>UNIT X : TRAINING AND DOPING IN SPORTS</b></p>	<p>1 Concept AND Principles of Sports Training</p> <p>1 Training Load : Over Load, Adaptation And Recovery</p> <p>1 Warming up &amp; Limbering down</p> <p>1 Skill, Technique &amp; Style</p> <p>1 Concept of Doping and its disadvantage</p> <p>1 Concept of Skill, Technique, Tactics &amp; Strategies</p>

**POLITICAL SCIENCE**

**BOOK-1: - INDIAN CONSTITUTION AT WORK**

**BOOK-2: - POLITICAL THEORY**

<b>MONTH</b>	<b>Chapter No: &amp; Name</b>	<b>Subtopics</b>
<b>APRIL</b>	Chapter 5 – 5 Legislature  (BOOK-1- - INDIAN CONSTITUTION AT WORK)	<p>Topics to be focused on:</p> <p>Why do we need a parliament?</p> <p>b) Why do we need two houses of parliament? · Rajya Sabha · Lok Sabha</p> <p>c) What does the parliament do? · Powers of Rajya Sabha · Special Powers of Rajya Sabha</p> <p>d) How does the parliament make laws?</p> <p>e) How does the parliament control the executive?</p> <p>f) What do the committees of parliament do?</p> <p>g) How does the parliament regulate itself?</p>
<b>MAY</b>	Chapter 1 - Political Theory: An Introduction  (BOOK-2- POLITICAL THEORY)	<p>Topics to be focused on:</p> <p>a) What is politics?</p> <p>b) What do we study in political theory?</p> <p>c) Putting Political theory into practice</p> <p>d) Why should we study political theory?</p>
<b>MAY</b>	Chapter-1- Constitution: Why and How?  (BOOK-1- - INDIAN CONSTITUTION AT WORK)	<p>Topics to be Focused:</p> <p>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</p> <p>The authority of a constitution ●            Mode of promulgation ●            The substantive provisions of a constitution ●            Balanced institutional design</p>

<b>MAY</b>	Chapter 2 – Freedom  (BOOK-2- POLITICAL THEORY)	<ul style="list-style-type: none"> <li>● The Ideal of Freedom</li> <li>● The sources of Constraints-Why do we need constraints?</li> <li>● The Harm Principle</li> <li>● Negative and Positive Liberty</li> </ul>
<b>JULY</b>	Chapter 3- Election and Representation  (BOOK-1- - INDIAN CONSTITUTION AT WORK)	<p>(i) Topics to be focused:</p> <p>a) Elections and democracy</p> <p>b) Election system in India · First Past the Post System · Proportional Representation</p> <p>c) Why did India adopt the FPTP system?</p> <p>d) Reservation of constituencies</p> <p>e) Free and fair elections · Universal franchise and right to contest · Independent Election Commission</p> <p>f) Electoral Reforms.</p>
<b>JULY</b>	Chapter-3- Equality  (BOOK-2- POLITICAL THEORY)	<p>Topics to be focused on:</p> <p>a) Why does equality matter? ● Equality of opportunities ● Natural and Social Inequalities</p> <p>b) Three dimensions of equality</p> <p>c) Feminism, Socialism</p> <p>d) How can we promote equality?</p>
<b>JULY</b>	Chapter-4- Executive  (BOOK-1-INDIAN CONSTITUTION AT WORK)	<p>a) What is an executive?</p> <p>b) What are the different types of executives?</p> <p>c) Parliamentary executive in India · Power and position of President · Discretionary Powers of the President</p> <p>d) Prime Minister and Council of Ministers</p> <p>e) Permanent Executive: Bureaucracy</p>
<b>AUGUST</b>	Chapter 2 - Rights in the Indian Constitution	<p>The importance of rights · Bill of Rights</p> <p>b) Fundamental rights in the Indian Constitution · Right to Equality · Right to Freedom · Right against Exploitation · Right</p>

<b>AUGUST</b>	(BOOK-1- INDIAN CONSTITUTION AT WORK)	to Freedom of Religion · Cultural and Educational Rights · Right to Constitutional Remedies c) Directive principles of state policy
<b>AUGUST</b>	Chapter 4- Social Justice  (BOOK-2- POLITICAL THEORY)	Topics to be focused: What is Justice? ● Equal Treatment for Equals ● Proportionate Justice ● Recognition of Special Needs b) Just distribution c) John Rawls's Theory of Justice d) Pursuing Social Justice e) Free Markets versus State Intervention
<b>SEPTEMBER</b>	Chapter-6- Judiciary  (BOOK-1- INDIAN CONSTITUTION AT WORK)	Topics to be focused:  a) Why do we need an independent judiciary? · Independence of Judiciary · Appointment of Judges · Removal of Judges b) Structure of the Judiciary c) Jurisdiction of supreme Court · Original Jurisdiction · Writ Jurisdiction · Appellate Jurisdiction · Advisory Jurisdiction d) Judicial Activism e) Judiciary and Rights f) Judiciary and Parliament
<b>SEPTEMBER</b>	Chapter-5- Rights  (BOOK-2- POLITICAL THEORY)	Topics to be focused on  a) What are Rights? b) Where do rights come from? c) Legal rights and the state d) Kinds of rights e) Rights and responsibilities
	Chapter-7- Federalism	Topics to be focused:

<b>OCTOBER</b>	(BOOK-1- INDIAN CONSTITUTION AT WORK) Chapter-7- Federalism  (BOOK-1- INDIAN CONSTITUTION AT WORK)	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
<b>OCTOBER</b>	Chapter- 6- Citizenship  (BOOK-2- POLITICAL THEORY)	Topics to be focused:  a) Introduction b) Full and equal membership c) Equal Rights d) Citizen and Nation e) Universal Citizenship f) Global Citizenship
<b>NOVEMBER</b>	Chapter-8- Local Governments  (BOOK-1- INDIAN CONSTITUTION AT WORK)	Topics to be focused:  a) Why local governments? b) Growth of Local Government in India · Local Governments in Independent India c) 73rd and 74th amendments d) Three-Tier Structure
<b>NOVEMBER</b>	Chapter-7- Nationalism  (BOOK-2- POLITICAL THEORY)	Topics to be focused: -  Introducing Nationalism b) Nations and Nationalism ● Shared Beliefs ● History ● Shared National Identity c) National self-determination

		d) Nationalism and Pluralism
<b>DECEMBER</b>	Chapter-9- Constitution as a Living Document  (BOOK-1- INDIAN CONSTITUTION AT WORK)	Topics to be focused: -  Are constitutions static? b) How to amend the constitution? c) Why have there been so many amendments? d) Contents of amendments made so far · Differing Interpretations · Amendments through Political Consensus · Controversial Amendments
<b>DECEMBER</b>	Chapter-8- Secularism  (BOOK-2- POLITICAL THEORY)	What is Secularism? ● Inter-religious Domination ● Intra-religious Domination b) Secular State c) The Western model of secularism The Indian model of secularism Criticisms of Indian Secularism ● Western Import ● Minoritism ● Interventionist ● Vote Bank Politics
<b>JANUARY</b>	Chapter-10- The Philosophy of the Constitution  (BOOK-1- INDIAN CONSTITUTION AT WORK)	a) What is meant by the 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
<b>JANUARY</b>	BOOKS 1 & 2	COMPLETE REVISION OF THE SYLLABUS

MONTH	Unit No/Chapter No	Topic & Subheadings
<b>APRIL</b>	Unit I: INTRODUCTION TO AI	<ul style="list-style-type: none"> <li>• What is AI?</li> <li>• History of AI</li> <li>• What is Machine Learning               <ul style="list-style-type: none"> <li>○ Difference between conventional programming and machine learning</li> <li>○ How is Machine learning related to AI?</li> </ul> </li> <li>• What is data?               <ul style="list-style-type: none"> <li>○ Structured</li> <li>○ Unstructured</li> <li>○ Examples of unstructured data- text, images</li> </ul> </li> <li>• Terminology and Related Concepts               <ul style="list-style-type: none"> <li>○ Machine learning</li> <li>○ Supervised learning (examples)</li> <li>○ Unsupervised learning (examples)</li> <li>○ Deep learning</li> <li>○ Reinforcement learning</li> <li>○ Machine Learning Techniques and Training</li> <li>○ Neural Networks</li> </ul> </li> <li>• What machine learning can and cannot do</li> <li>• More examples of what machine learning can and cannot do</li> <li>• Jobs in AI</li> </ul>
	Unit 1 : Communication Skills	<p><b>Methods of Communication</b></p> <ul style="list-style-type: none"> <li>• Verbal</li> <li>• Non-verbal</li> <li>• Visual</li> </ul> <p><b>Communication styles-</b> assertive, aggressive, passive-aggressive, submissive, etc.</p> <p><b>Writing skills to the following:</b></p> <ul style="list-style-type: none"> <li>• Sentence</li> <li>• Phrase</li> <li>• Kinds of Sentences</li> <li>• Parts of Sentence</li> <li>• Parts of Speech</li> <li>• Articles</li> <li>• Construction of a</li> <li>• Paragraph</li> </ul>

**SUBJECT: ARTIFICIAL INTELLIGENCE(843)**  
**BOOKS PRESCRIBED: TOUCHPAD AND SULTAN CHAND**  
**CLASS XI**

<b>MAY</b>	Unit 2: AI Applications and Methodologies	<ul style="list-style-type: none"> <li>• Key Fields of Application in AI <ul style="list-style-type: none"> <li>○ Chatbots (Natural Language Processing, speech)</li> <li>○ Alexa, Siri and others</li> <li>○ Computer vision</li> <li>○ Weather Predictions</li> <li>○ Price forecast for commodities</li> <li>○ Self-driving cars</li> </ul> </li> <li>• Characteristics and types of AI <ul style="list-style-type: none"> <li>○ Data driven</li> <li>○ Autonomous systems</li> <li>○ Recommender systems</li> <li>○ Human like</li> </ul> </li> </ul>
		<ul style="list-style-type: none"> <li>• Cognitive Computing (Perception, Learning, Reasoning)</li> <li>• Recommended deep-dive in NLP, CV, etc.*</li> <li>• AI and Society</li> <li>• The Future with AI, and AI in Action</li> </ul> <ul style="list-style-type: none"> <li>• Non-technical explanation of deep learning</li> </ul>
	Unit 2 Self-Management Skills	<ul style="list-style-type: none"> <li>• <b>Describe the importance of dressing appropriately, looking decent and positive body language</b></li> <li>• <b>Describe the term Grooming</b></li> <li>• <b>Prepare a personal grooming checklist</b></li> <li>• <b>Describe the techniques of self Exploration</b></li> <li>• <b>Describe the important factors that influence in team building</b></li> <li>• <b>Describe factors influencing team work</b></li> <li>• <b>Meaning and importance of time management – setting and prioritizing goals, creating a schedule, making lists of tasks, balancing work and leisure, using different optimization tools to break large tasks into Smaller tasks</b></li> </ul>
<b>JULY</b>	Unit 3: Maths for AI	<ul style="list-style-type: none"> <li>• Introduction to matrices (Recap)</li> <li>• Introduction to set theory (Recap) <ul style="list-style-type: none"> <li>○ Introduction to data table joins</li> </ul> </li> <li>• Simple statistical concepts</li> <li>• Visual representation of data, bar graph, histogram, frequency bins, scatter plots, etc.</li> <li>• With co-ordinates and graphs introduction to dimensionality of data</li> <li>• Simple linear equation <ul style="list-style-type: none"> <li>○ Least square method of regression</li> </ul> </li> </ul>

	Unit 4: AI Values (Ethical decision making)	<p>AI: Issues, Concerns and Ethical Considerations</p> <ul style="list-style-type: none"> <li>• Issues and Concerns around AI</li> <li>• AI and Ethical Concerns</li> <li>• AI and Bias</li> <li>• AI: Ethics, Bias, and Trust</li> <li>• Employment and AI</li> </ul>
<b>AUGUST</b>	Unit 5: Introduction to story telling	<ul style="list-style-type: none"> <li>• Storytelling: communication across the ages <ul style="list-style-type: none"> <li>○ Learn why storytelling is so powerful and cross-cultural, and what this means for data storytelling</li> </ul> </li> <li>• The Need for Storytelling</li> <li>• Story telling with data <ul style="list-style-type: none"> <li>○ By the numbers: How to tell a great story with your data.</li> </ul> </li> <li>• Conflict and Resolution <ul style="list-style-type: none"> <li>○ Everyone wants to resolve conflict, and a good data storyteller is there to help!</li> </ul> </li> <li>• Storytelling for audience <ul style="list-style-type: none"> <li>○ Your data storytelling depends on the background knowledge of your audience.</li> </ul> </li> <li>• Insights from storytelling <ul style="list-style-type: none"> <li>○ Make the audience care about the data</li> <li>○ Keep the audience engaged</li> <li>○ Create from the end; present from the beginning</li> <li>○ Start with an anecdote, end with the data</li> <li>○ Build suspense, not surprise</li> </ul> </li> </ul>
	Unit 6: Critical and Creative thinking	<ul style="list-style-type: none"> <li>• Design thinking framework <ul style="list-style-type: none"> <li>○ Right questioning (5W and 1H)</li> <li>○ Identifying the problem to solve</li> <li>○ Ideate</li> </ul> </li> </ul>
<b>SEPTEMBER</b>	<b>TERM 1</b>	

**OCTOBER**

Unit 7: Data Analysis  
(Computational thinking)

- Types of structured data
  - Date and time
  - String
  - Categorical
- Representation of data
- Exploring Data
  - Cases, variables and levels of measurement
  - Data matrix and frequency table
  - Graphs and shapes of distributions
  - Mode, median and mean
  - Range, interquartile range and box plot
  - Variance and standard deviation
  - Z-scores
  - Example
  - Practice exercise

Unit 8: Regression

- Correlation and Regression
  - Crosstabs and scatterplots
  - Pearson's r
  - Regression - Finding the line
  - Regression - Describing the line
  - Regression - How good is the line?
  - Correlation is not causation
  - Example contingency table
  - Example Pearson's r and regression Readings
  - Correlation
  - Regression
  - Caveats and examples
  - Practice exercise Correlation and Regression
  - Explain the importance of data from above examples
  - How prediction changes with changing data?

<b>NOVEMBER</b>	Unit 9: Classification & Clustering	<ul style="list-style-type: none"> <li>• What is a classification problem?</li> <li>• Examples <ul style="list-style-type: none"> <li>- Simple binary classification</li> </ul> </li> <li>• Introduction to binary classification with logistic regression</li> <li>• True positives, true negatives, false positives and false negatives <ul style="list-style-type: none"> <li>○ Where we should care more with examples</li> <li>○ Example- false negative of a disease detection can have different implication than false positive, one will be more physical harm and other will be mental</li> </ul> </li> <li>• <b>Practice exercise on simple Binary Classification model</b></li> </ul>
		<ul style="list-style-type: none"> <li>• What is a clustering problem?</li> <li>• Why is it unsupervised?</li> <li>• Examples</li> <li>• <b>Practice exercise on simple Clustering model</b></li> </ul>
	Unit 3 – Information and Communication Skills	<ul style="list-style-type: none"> <li>• Introduction to word Processing.</li> <li>• Software packages for word processing.</li> <li>• Opening and exiting the word processor.</li> <li>• Creating a document</li> <li>• Editing Text</li> <li>• Wrapping and aligning the text</li> <li>• Font size, type and Face</li> <li>• Header and Footer</li> <li>• Auto correct</li> <li>• Numbering and bullet</li> <li>• Creating table</li> <li>• Find and replace</li> <li>• Page numbering.</li> <li>• Printing document</li> <li>• Saving a document in various formats.</li> </ul>
<b>DECEMBER</b>	Unit 10: AI Values (Bias awareness)	<ul style="list-style-type: none"> <li>• AI working for good</li> <li>• Principles for ethical AI</li> <li>• Types of bias (personal /cultural /societal)</li> <li>• How bias influences AI based decisions</li> <li>• How data driven decisions can be debiased</li> </ul>
	Unit 4: Entrepreneurial Skills	<ul style="list-style-type: none"> <li>• <b>Values in general and entrepreneurial values</b></li> <li>• <b>Entrepreneurial value orientation with respect to innovativeness, independence, Outstanding performance and respect for work.</b></li> <li>• <b>Attitudes in general and entrepreneurial Attitudes.</b></li> <li>• <b>Using imagination</b></li> <li>• <b>Intuition Tendency to take moderate risk</b></li> <li>• <b>Enjoying freedom of expression and action</b></li> </ul>

		<ul style="list-style-type: none"> <li>• <b>Looking for economic Opportunities</b></li> <li>• <b>Believing that we can change the Environment</b></li> <li>• <b>Analyzing situation and planning action</b></li> <li>• <b>Involving in activity</b></li> </ul>
	Unit 5 : Green Skills	<ul style="list-style-type: none"> <li>• <b>Main sectors of green economy- E waste management, green transportation, renewal energy, green construction, water Management</b></li> <li>• <b>Policy initiatives for greening economy in India</b></li> <li>• <b>Stakeholders in green Economy</b></li> <li>• <b>Role of government and private agencies in greening cities, buildings, tourism, industry, transport, renewable energy, waste management, agriculture, water, forests and fisheries</b></li> </ul>
<b>JANUARY</b>	Project	Project Work/ Field Visit/ Project/ Ideation + presentation Revision of the syllabus and lab practice
<b>February</b>	<b>TERM II</b>	

## MASS MEDIA STUDIES-

MONTHS		UNITS	
APRIL/MAY	PART A	<b>EMPLOYABILITY SKILLS-</b>  UNIT-1 COMMUNICATION SKILLS – III  UNIT 2: SELF-MANAGEMENT SKILLS – III	
JULY	PART A	UNIT 3: INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS – III  UNIT 4: ENTREPRENEURIAL SKILLS – III  UNIT 5: GREEN SKILLS – III	
AUGUST	PART B	<b>SUBJECT SPECIFIC SKILLS-</b>  UNIT 1: INTRODUCTION OF MASS COMMUNICATION  UNIT 2: EVOLUTION OF THE MEDIA	
SEPTEMBER		REVISION/HALF YEARLY	
OCTOBER	PART B	UNIT 3: UNDERSTANDING MEDIA	

		UNIT 4: PREPRODUCTION SKILLS	
NOVEMBER	PART C	PROJECT WORK/FIELD VISIT PRACTICAL WORK PRACTICAL EXAMINATION	
DECEMBER	PART D	VIVA VOCE PRACTICAL FILE/STUDENT PORTFOLIO	
JAN/FEB		REVISION	

## **BUSINESS ADMINISTRATION**

<b>MONTH</b>	<b>CHAPTER /BOOK /MAIN SKILL &amp; UNIT/TOPICS</b>	<b>UNIT/TOPIC</b>
<b>APRIL</b>	<b>Subject Specific Skills</b>	Unit 1 :Introduction to Business Operation
	<b>Employability Skills</b>	Unit 1 : Communication Skills-IV
<b>MAY</b>	<b>Subject Specific Skills</b>	Unit 2 : Business Environment
	<b>Employability Skills</b>	Unit 2 : Self-Management Skills- IV
<b>JULY</b>	<b>Subject Specific Skills</b>	Unit 3 :Products & Services
	<b>Employability Skills</b>	Unit 3 : ICT Skills- IV
<b>AUGUST</b>	<b>Subject Specific Skills</b>	Unit 4 :Types of Organisation
	<b>Employability Skills</b>	Unit 4 : Entrepreneurial Skills- IV
<b>SEPTEMBER</b>	<b>1<sup>st</sup> term examination</b>	
<b>OCTOBER</b>	<b>Subject Specific Skills</b>	Unit 5 : Formation of Partnership Firm and Joint Stock Company
	<b>Employability Skills</b>	Unit 5 : Green Skills- IV

<b>NOVEMBER</b>	<b>Subject Specific Skills</b>	Unit 6 : Business Correspondence Unit 7 : Functional Areas of Management
<b>DECEMBER</b>	<b>Subject Specific Skills</b>	Unit 8 :Organisational Behaviour
<b>JANUARY</b>	<b>REVISION</b>	

### **YOGA (SUBJECT CODE - 841)**

<b>MONTH</b>	<b>CHAPTER /BOOK /MAIN SKILL &amp; UNIT/TOPICS</b>	<b>UNIT/TOPIC</b>
<b>APRIL</b>	<b>Subject Specific Skills</b>	Unit 1 – Introduction to Yoga and Yogic Practices - I
<b>MAY</b>	<b>Subject Specific Skills</b>	Unit 2 – Introduction to Yoga Texts - I
<b>JULY</b>	<b>Subject Specific Skills</b> <b>Employability Skills</b>	Unit 3 – Yoga for Health Promotion - I Unit 1 : Communication Skills-IV
<b>AUGUST</b>	<b>Employability Skills</b>	Unit 2 : Self-Management Skills- IV
<b>SEPTEMBER</b>	<b>1<sup>st</sup> term examination</b>	
<b>OCTOBER</b>	<b>Employability Skills</b>	Unit 3 : ICT Skills- IV
<b>NOVEMBER</b>	<b>Employability Skills</b>	Unit 4 : Entrepreneurial Skills- IV

<b>DECEMBER</b>	<b>Employability Skills</b>	Unit 5 : Green Skills- IV
<b>JANUARY</b>	<b>REVISION</b>	

### **Subject: Hindustani Percussion Instruments**

Month	Chapter and sub-topic	Activity
April	Lay and Teentaal, dugun, chaigun, life sketch of Kudau Singh maharaj	Practice on Tabla and Padhant on hand
May	Sangeet, Jhaptaal and Ektaal, Kayda in Teentaal	Practice on Tabla and Padhant on hand
July	Kala, some paltas and Tihai of Kayda in Teentaal, tukra in Teentaal	Practice on Tabla and Padhant on hand
August	Banaras gharana, Bedum Tihai, Chakkardar Tukra	Practice on Tabla and Padhant on hand
September	Revision	
October	Natyashastra with special reference to Awanadya Vadya, Kayda with Palta and Tihai in Jhaptaal	Practice on Tabla and Padhant on hand
November	Life sketch of Nana Panse, Rela in Teentaal	Practice on Tabla and Padhant on hand
December	Kudau Singh gharana, Rela, Tukra in Jhaptaal	Practice on Tabla and Padhant on hand
January	Sadharan and chakkardar Paran in Teentaal, Sultaal	Practice on Tabla and Padhant on hand
February	Revision	

