



SUBJECT – ENGLISH CORE

Month	Section	Content	Objectives/Aims
April & May		Bridge course	To prepare students for advanced studies
July	Reading	Passages for Note Making & Summary Writing	To develop the skill of making notes and summarizing
	Writing	Classified Ads	To convey needs and requirements in concise and precise way
		Speech & Debate	To present ideas on a given issue in a convincing way.
	Grammar	Error Correction	To develop the ability to write flawless language
	Literature	L-The Portrait of a Lady	To point out relevance of strong relationship with elders
		S - The Summer of a Beautiful White Horse	To know that essential goodness in a human being remains intact
		P- A Photograph	To understand the transient nature of human life.
P- The Tale of Melon City		To point out that misuse of power and lack of wisdom result in catastrophic situation.	
August	Reading	Passages for Note Making	To develop the skill of making notes and summarizing
	Writing	Classified ads	To convey needs and requirements in concise and precise way
		Posters	To present topics of educational and social relevance aesthetically.
	Grammar	Jumbled Words	To develop confidence and proficiency in the use of language skills
	Literature	L- We're Not Afraid to Die.....	To appreciate the importance of courage and determination in adverse circumstances.
		P - The Laburnum Top	To emphasis the phenomena of transfer of energy present in nature
		P - Voice of the Rain	To appreciate the bounties of nature in the form of rain.
		S - The Address	To explain the impact of war.
September	Reading	Passages for Comprehension &	To build confidence regarding concept clarity along with vocabulary enhancement
		Note Making	To develop the skill of making notes and summarizing
	Writing	Classified Advertisements	To convey needs and requirements in concise and precise way
	Grammar	Editing Tasks	To develop the ability to identify the mistakes and correct them
	Literature	L - Discovering Tut- The Saga Continues	To point out the contribution of technology in studying past.
October	Reading	Passages for Note Making (practice)	To develop the skill of making notes and summarizing
	Writing	Speech & Debate	To present ideas on a given issue in a convincing way.
	Grammar	Error Correction	to use different grammatical structures in appropriate contexts.
	Literature	P - Childhood	To know the constraints of adult life.
		S-Mother's Day	to focus on the dignity of mother.



November	Reading	Passages for Comprehension (practice)	To build confidence regarding concept clarity along with vocabulary enhancement
	Writing	Speech & Debate	To present ideas on a given issue in a convincing way.
		Posters	To present topics of educational and social relevance aesthetically.
	Grammar	Omission	To develop confidence and proficiency in the use of language skills
	Literature	P-Father to Son	To point out changing relationship between parents and children.
L - The Adventure		To acquaint with the genre of time travel	
December	Reading	Revision & Practice	To develop confidence and proficiency in the use of language skills
	Writing	Revision & Practice	To prepare students for writing in an impressive style
	Grammar	Revision & Practice	To develop confidence and proficiency in the use of language skills
	Literature	L - The Silk Road	To develop a liking for reading travelogues
		S - Birth	To know that persistent efforts bring result.
January & February		Revision	To develop confidence and proficiency in the use of language skills

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
READING SECTION: Note Making & Summary WRITING SECTION: Classified Ads, Speech GRAMMAR SECTION: Error Correction LITERATURE SECTION: L-1 The Portrait of a Lady, S-1, The Summer of a Beautiful White Horse P 1- A Photograph & P- The Tale of Melon City	READING SECTION: Comprehension Passage and Note Making & Summary WRITING SECTION: Writing WRITING SECTION: Classified Ads, Posters, Speech, Debate GRAMMAR SECTION: Editing, Gap Filling & Jumbled Words LITERATURE SECTION: L - The Portrait of a Lady, L- We're Not Afraid to Die..., L- Discovering Tut, S- The Summer of a Beautiful White Horse, S - The Address P-A Photograph, P - The Laburnum Top,	READING SECTION: Comprehension Passage WRITING SECTION: Posters, Debate GRAMMAR SECTION: Editing & Jumbled Words LITERATURE SECTION: L- The Adventure, P- Childhood S - Mother's Day	READING SECTION: Comprehension Passage and Note Making & Summary WRITING SECTION: Classified Ads, Posters, Speech, Debate GRAMMAR SECTION: Editing, Gap Filling & Jumbled Words LITERATURE SECTION: L - The Portrait of a Lady, L- We're Not Afraid to Die..., L- Discovering Tut, L- The Adventure, L- Silk Road, S- The Summer of a Beautiful White Horse, S - The Address, S-	READING SECTION: Comprehension Passage and Note Making & Summary WRITING SECTION: Classified Ads, Posters, Speech, Debate GRAMMAR SECTION: Editing, Gap Filling & Jumbled Words LITERATURE SECTION: L - The Portrait of a Lady, L- We're Not Afraid to Die..., L- Discovering Tut, L- The Adventure, L- Silk Road, S-The Summer of a Beautiful White Horse, S - The Address, S- Mother's Day, S- Birth P-A Photograph, P -The



	P- The Voice of the Rain, P- Tale of Melon City		Mother's Day, S- Birth P-A Photograph, P -The Laburnum Top, P- The Voice of the Rain, P- Childhood, P- Father to Son, P- Tale of Melon City	Laburnum Top, P- The Voice of the Rain, P- Childhood, P- Father to Son, P- Tale of Melon City
	Assessment of Speaking & Listening			Assessment of Speaking and Listening



SUBJECT – ACCOUNTANCY

Month	Chapter	Learning objectives/Learning outcomes	Enrichment Activity	Project
April	Introduction to Accounting Basic Accounting terms Theory Base of Accountancy	Students would be able to understand the: Meaning, Process & Attributes of Accounting Advantages, Limitations & Users of Accounting Information. Students would be able to understand. Terminology of Accounting Students would be able to understand: Meaning, Nature & Features of Accounting Principles. Utility of Accounting Standards.	Tambola Crossword Puzzle	
May	Brief Introduction of chapters 1-3 Bases of Accounting Accounting Equation	Students would be able to understand the: Cash & Accrual Basis of Accounting Students would be able to understand the Effect of a Transaction on an Accounting Equation.	Case Study	
July	Recording of Transactions. Preparation of Ledger & Trial Balance.	Meaning & Rules of Debit & Credit. Classification & Balancing of an Account. Posting of Entries. Preparation of Ledger. Meaning, objectives, advantages, limitations & Preparation of Trial Balance.	Preparation of Journal and Ledger	Project on Source Documents & Preparation of Vouchers.
August	Cash Book & Other Books Bank Reconciliation statement	Students would be able to understand: Meaning, Kinds & Preparation of different types of Cash Books. Meaning, Classification, Advantages & Preparation of Subsidiary Books. Students would be able to understand: The reasons behind the difference in the balance as per Passbook and Cash Book and preparation of BRS.	Preparation of Subsidiary Books Game on spotting the differences.	
September	Depreciation	Students would be able to understand the: Meaning, Concept, Causes & need of Depreciation. Preparation of Fixed Asset Account by S.L.M & W.D.V Method		
October	Provisions & Reserves.	Students would be able to understand. Meaning, objective & importance of Reserves & Provisions.		



	Rectification of Errors Financial statements and financial statement with adjustments	Students would be able to understand. Types Of Reserve Classification & Rectification of Errors Students would be able to understand Preparation of trading and profit and loss account. Preparation of balance sheet. Adjustment in financial statements.	Relay	
November	Financial Statements with Adjustments contd.	Students would be able to understand: Preparation of Trading and P&L Account. Preparation of Balance Sheet. Adjustments in Financial Statements.		Comprehensive Project
December - February	Revision			

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Chapter 1-5	Chapter 1 – 6, 8, 9, and 14	Chapter 10, 11, 13	Ch. 1 to Ch. 17 except Ch. 7 & GST	Whole Syllabus



SUBJECT – BUSSINESS STUDIES

Month	Chapter	Learning Objectives	Enrichment Activity	Project
April	Nature & Purpose of Business Forms of Business Organization	After studying this chapter students would be able to explain: History of Business Activities Meaning of economic & non-economic activities Objectives of Business Classification of Business activities Business Risks Role of Profit Factors to be considered while starting a business. After studying this chapter students would be able to explain: Different forms of private enterprises	Creation of a branched table classifying the activities observed in the daily life	
May	Forms of Business Organization contd. Public, Private & Global Enterprises	After studying this chapter students would be able to explain: Formation of Company After studying this chapter students would be able to explain: Difference between Public Sector and Private Sector Different forms of public enterprises Meaning of Global enterprises & Joint ventures	Collection and analysis of data	Project on: Case Study on a Product Aids to Trade
July	Business Services Emerging Modes of Business	After studying this chapter students would be able to explain: Meaning and types of Business Services Meaning and Types of Banking Services Insurance - Principles and Types Postal Services After studying this chapter students would be able to explain: Meaning, Scope, Benefits & Limitations of e-Business Difference between e-business and Traditional Business	PPT on Banking Services	
August	Social Responsibilities of Business	After studying this chapter students would be able to explain: Concept, Arguments in favor of Social Responsibility Social Responsibility towards Different Interest Groups Business & Environmental Pollution Business Ethics	Debate	
September	Sources of Business Finance	After studying this chapter students would be able to explain: Meaning and Importance of Business Finance Various sources of Business Finance Merits & Limitations of the various sources.	Quiz	



October	Small Business and Entrepreneurship Development	After studying this chapter students would be able to explain: Meaning, Role & Problems of Small Business in India Government schemes and agencies for small scale industries Concept, Need and Process of Entrepreneurship Development	Report on contribution of small business in India/ Report on problems faced by small business in India	
November	Small Business and Entrepreneurship Development contd. Internal Trade	Start-up India Scheme and ways to fund startup Intellectual Property Rights. After studying this chapter students would be able to explain: Meaning & Types of Internal Trade Services of Wholesalers and Retailers Fixed shops Retailers Concept of GST	PPT on famous Startups and their funding PPT on Chain Stores and Departmental Stores	
December	International Business	After studying this chapter students would be able to explain: Meaning, Nature, and Benefits of International Business. Export and Import Procedure	Role Play on Export and Import Procedure	
January	Revision			

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Ch. 1 & Ch. 2	Ch. 1 to Ch. 5	Ch. 7 & Ch. 8	Ch. 1 to Ch. 10	Whole Syllabus



SUBJECT – ECONOMICS

Introductory Microeconomics & Statistics for Economics

Month	Chapter	Learning Objectives	Enrichment Activity	Project
April	Introduction of Statistics Collection of data	To familiarize the students with the meaning, scope, and importance of statistics in economics. Learners are expected to acquire skill in collection of data systematically: Methods of data collection.	Students will be asked to make a questionnaire and take a survey. to collect information.	
May	Introduction of Microeconomics Organization of data	To make students aware of economy, economic problem, and central problems of the economy. To develop the skill among students regarding PPC, change in PPC due to various economic conditions and the concept of MOC. Types of statistical series, Methods of construction of series and Classification techniques.	Organize a class presentation on various recent government programmes and their impact on PPC of the country. Draw a flow chart of different statistical series.	Project
July	Consumer's Equilibrium Theory of demand Presentation of data	Students will understand the concept of utility, total utility, marginal utility, and the law of diminishing marginal utility. Students would be able to understand the concept of consumer equilibrium- Utility analysis and Indifference curve analysis. Students will be able to understand the concept of demand, law of demand, factors affecting demand and changes in demand due to various reasons. students will understand the meaning of Histogram, bar diagram, pie diagram, frequency curve etc.	Discuss in class the various consumption goods in which law of DMU can be applied. Conduct a classroom presentation on those factors that affect demand. Drawing of various diagrams.	
August	Elasticity of demand Measures of central tendency	Students will understand Price elasticity of demand, degrees, measurement, and factors affecting elasticity of demand. Students will be able to understand the meaning of mean & median	Collect and compare the marks of students and calculate averages out of it.	
September	Production Function & cost	Students will understand the concept of production and law of variable proportions. Students will understand the cost and meaning and relationship. Continued Revision Half yearly- examination	Conduct a class presentation of budding entrepreneurs.	
October	Concept of Revenue Producer's Equilibrium	Students will understand types of revenue and their relationship. Students will understand the producer's equilibrium: meaning and its conditions in terms of MC&MR. Students will learn various methods of finding mode.	Collect some newspaper cutting of India's top entrepreneurs and make a collage.	



	Measures of central tendency			
November	Theory of supply Correlation	Students would be able to understand the concept of supply, law of supply, factors affecting supply and changes in supply. Students will understand price elasticity of supply, degrees, and measurement. Students will be able to learn Karl Pearson's methods of correlation: Actual mean, short-cut method and step-deviation method.	The automobile sector is facing a crisis, with a sharp decline in sales. Analyze the impact of this statement on the supply of cars with a PPT.	
December	Correlation Forms of market	Students would be able to understand Spearman's rank difference methods of correlation. Students will understand different forms of market- perfect competition.	Make a report on the various products by classifying them according to different market forms.	
January	Index Numbers Market Equilibrium	To understand the meaning of index number, CPI & WPI. Students will understand the meaning and price determination under perfect competition & the shift in demand and supply and their impact on equilibrium price.	Visit the ration shops of your city and prepare a project on the working of ration shop.	
February	Revision of Annual Examination			

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Micro Eco: Ch. 1 Statistics: Ch. 1 to 3	Micro Eco: Ch. 1 to 5 Statistics: Ch. 1 to 8 (Excluding mode)	Micro Eco: Ch. 6 to 7 Statistics: Ch. 8 (mode) & 10 (Karl Pearson's method)	Micro Eco: Ch. 1 to 10 Statistics: Ch. 1 to 10	Complete Syllabus



SUBJECT – MATHEMATICS

Month	Ch. No.	Chapters Name	Learning Objectives/Outcomes	Activities
April	3	Trigonometric Function	To know trigonometric functions using unit circle, identities, formulas, and their application.	
	9	Straight Lines	To use algebra advantageously in study of straight line, their slopes and their properties.	
May	1	Sets	To know about sets, sub- sets, and their representation, Venn diagrams, operations on sets, practical problems on Union and Intersection.	To verify operations on sets using venn diagrams.
July	2	Relations And Functions	To know ordered pair, Cartesian product, relations, functions, domain, co-domain, range, and graphs of different functions.	To find the no. of relations from set A to B.
	4	Complex Numbers & Quadratic Equations	To make clear about complex numbers and real numbers, operations on complex numbers and multiplicative Inverse, conjugate, modulus, and their properties.	To differentiate between function and relation.
August	5	Linear Inequalities	To make clear about the symbols less than, more than use in inequality, meaning of at least and at most, solution of inequality algebraically and graphically, word problems.	To find out the solution of linear inequations graphically
	6	Permutations & Combinations	To understand the concept of fundamental principle of counting, factorial notation, permutations and combination and their properties with daily life examples	
September	7	Binomial Theorem	Binomial expansion for a given positive integral power	To construct a pascal triangle and to write binomial expansion for a given positive integer power
	Revision For Half Yearly Exams			
October	8	Sequences And Series	To Know about the sequence, Arithmetic and geometric progressions.	
November	10	Conic Section	To learn about the intersection of a plane with a double napped cone right circular cone results in different types of the curve.	To construct an ellipse
	11	Three Dimensional Geo.	To extend the knowledge of two-dimensional geometry to three-dimensional geometry.	
December	12	Limits & Derivatives	To find out the limits and derivatives of different functions	
January	13	Statistics	To learn about the important measures of dispersion and their methods of calculation for ungrouped and grouped data.	
	14	Probability	To know about the basic terms, for random	To find the sample



			experiments with different cases to interpret the probability.	space of (i) dices (ii) coins.
February	Revision			

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Ch: 1, 3, 9	Ch: 1, 2, 3, 4, 5, 6, 7, 9	Ch: 8, 10	Ch: 3, 4, 5, 6, 7, 8, 10, 11, 12	Complete Syllabus



SUBJECT – COMPUTER SCIENCE WITH PYTHON

Month	Chapter Name	Objective / Aim	Lab Activity
April	Ch – 1 Computer System Organization	Description of a computer system and mobile system, CPU, memory, hard disk, I/O, Types of software, OS, utility, libraries, Language of Bits: bit, byte, MB, GB, TB, and PB. Execution of a program, Interpreters, Compiler and an interpreter, how an operating system runs a program, idea of loading, operating system as a resource manager, Concept of cloud computers, cloud storage (public/private), and brief introduction to parallel computing.	Introduction to Python environment <ul style="list-style-type: none"> • Interactive Mode • Script Mode • Operators & Operands
May	Ch – 2 Data Representation & Boolean Logic	Information representation: numbers in base 2, 8, 16, unsigned integers, binary addition, Strings: ASCII, UTF8, UTF32, ISCII (Indian script code), Boolean logic: OR, AND, NAND, NOR, XOR, NOT, truth tables, De Morgan's laws	Basic Programs of Python: <ul style="list-style-type: none"> • Add 2 numbers. • Make a simple calculator. • Calculate total & percentage of a student.
July	Ch – 3 Computational Thinking & Getting Started with Python Ch – 4 Python Programming Fundamentals	Introduction to problem solving, Steps for problem solving, Algorithms, Flowcharts, Pseudocode, computational thinking & its components, Familiarization with the basics of Python, features, advantages, disadvantages, how to install python, Python IDLE, Exiting Python. Variables, Multiple assignments, Keywords, expressions, Operators & its types, User Defined Functions, Indentation, Tokens, Comments process of writing a program, running it, and print statements; simple datatypes: integer, float, string	Basic Programs of Python: <ul style="list-style-type: none"> • Swap the values of two variables. • Conversion of Celsius to Fahrenheit & vice -versa. • Conversion of units of measurement. Basic Programs of Python: <ul style="list-style-type: none"> • To calculate the area & perimeter of various shapes. • Conversion from amount-in-dollars and dollar-to-rupee.
August	Ch – 5 Conditional & Looping Constructs Ch – 6 Strings in Python	Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort 3 numbers, and divisibility. Notion of iterative computation and control flow: for, while, Nested loop, jump Statements- break, continue & pass. Strings: compare, concatenation, substring; various string operations & functions.	Basic Programs of Python: <ul style="list-style-type: none"> • Print numbers from 1 to 100. • Print the table of a given number. • Check for Palindrome, Armstrong number. • Print Fibonacci Series Basic Programs of Python: <ul style="list-style-type: none"> • Reverse a string. • Check whether a string is palindrome or not. • Count the occurrence of a character in a string.
September	Half Yearly Examinations		



October	Ch – 7 Lists in Python Ch – 8 Tuples and Dictionary	Lists: finding the maximum, minimum, mean; linear search on list/tuple of numbers, and counting the frequency of elements in a list using a dictionary. Introduce the notion of accessing elements in a collection using numbers and names. Tuples and dictionary: finding the maximum, minimum, mean; linear search on list/tuple of numbers, and counting the frequency of elements in a list using a dictionary. Introduce the notion of accessing elements in a collection using numbers and names.	Basic Programs of Python: <ul style="list-style-type: none"> • Enter elements in a list and find the sum. • Find the minimum & maximum element in a list/tuple. • Input a list of numbers and swap elements at the even location with the elements at the odd location. • Input a list/tuple of elements, search for a given element in the list/tuple. • Create a dictionary with the roll number, name and marks of n students in a class and display the names of students who have scored marks above 75.
November	Ch – 9 Introduction to Python Modules Ch – 10 Society, Law & Ethics	Importing module using import statement/ from statement, importing math module, random module, statistics module. Digital Footprints, Digital society & Netizen, Data Protection, Intellectual Property Rights, its violation, Cyber crime	Basic Programs of Python: <ul style="list-style-type: none"> • Create a module Area and define functions to find the area of circle, square, rectangle etc. Import the module and calculate the area of a shape.
December	Ch – 11 Cyber Safety	Cyber safety: safely browsing the web, identity protection, confidentiality, social networks, cyber trolls and bullying, Appropriate usage of social networks: spread of rumors, and common social networking sites (Twitter, LinkedIn, and Facebook) and specific usage rules, safely accessing web sites: adware, malware, viruses, Trojans, safely communicating data: secure connections, eavesdropping, phishing and identity verification, IT Act, 2000, E-Waste management.	<ul style="list-style-type: none"> • Revision of all the programming concepts.
<p>PROJECT: The aim of the class project is to create something that is tangible and useful using Python file handling/Python-SQL connectivity. This should be done in groups of two to three students. The aim here is to find a real-world problem that is worthwhile solving. Students will choose a topic and prepare synopsis on the topic.</p>			

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Ch – 1, 2 & 3	Ch – 1 to 5	Ch – 6, 7, 8	Ch – 1 to 9	Complete Syllabus



SUBJECT – INFORMATICS PRACTICES

Month	Unit name	Chapter Name	Objective / Aim	Lab Activity
April	Unit 1: Introduction to Computer System	Introduction to Computer System	Introduction to computers and computing: evolution of computing devices, components of a computer system and their interconnections, Input/Output devices. Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns. 2 Software: purpose and types – system and application software, generic and specific purpose software.	Identify the components of the Computer System.
May	Unit 2: Introduction to Python	Introduction to Python	Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation of expressions, comments, input and output statements, data type conversion, debugging, control statements: if-else, for loop	<ol style="list-style-type: none"> 1. To find average and grade for given marks. 2. To find sale price of an item with given cost and discount (%). 3. To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle. 4. To calculate Simple and Compound interest. 5. To calculate profit-loss for given Cost and Sell Price. 6. To calculate EMI for Amount, Period and Interest. 7. To calculate tax - GST / Income Tax.
July		List	Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions.: len(), list(), append(), extend(), insert(), count(), find(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum()	<ol style="list-style-type: none"> 8. To find the largest and smallest numbers in a list. 9. To find the third largest/smallest number in a list. 10. To find the sum of squares of the first 100 natural numbers. 11. To print the first 'n' multiples of given number. 12. To count the number of vowels in user entered string. 13. To print the words starting with a alphabet in a user entered string. 14. To print the number of



				occurrences of a given alphabet in each string.
August		Dictionary	Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions: len(), dict(), keys(), values(), items(), get(), update(), clear(), del()	<p>15. Create a dictionary to store names of states and their capitals.</p> <p>16. Create a dictionary of students to store names and marks obtained in 5 subjects.</p> <p>17. To print the highest and lowest values in the dictionary.</p>
September	Half Yearly Examinations			
October	Unit 3: Database concepts and the Structured Query Language		<p>Database Concepts: Introduction to database concepts and its need, Database Management System.</p> <p>Relational data model: concept of attribute, domain, tuple, relation, candidate key, primary key, alternate key, foreign key. Structured Query Language: Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL: Creating a database, using database, showing tables using MySQL, Data Types: char, varchar, int, float, date</p> <p>Data Definition Commands: CREATE, DROP, ALTER (Add and Remove primary key, attribute). Data Query Commands: SELECT-FROM-WHERE, LIKE, BETWEEN, IN, ORDER BY, using arithmetic, logical, relational operators and NULL values in queries, Distinct clause</p> <p>Data Manipulation Commands: INSERT, UPDATE, DELETE.</p>	<p>19. To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key.</p> <p>20. To insert the details of at least 10 students in the above table.</p> <p>21. To display the entire content of table.</p> <p>22. To display Rno, Name and Marks of those students who are scoring marks more than 50.</p> <p>23. To find the average of marks from the student table.</p> <p>24. To find the number of students, who are from section 'A'.</p> <p>25. To display the information all the students, whose name starts with 'AN' (Examples: ANAND, ANGAD,..)</p> <p>26. To display Rno, Name, DOB of those students who are born between '2005-01-01' and '2005-12-31'.</p> <p>27. To display Rno, Name, DOB, Marks, Email of those male students in ascending order of their names.</p> <p>28. To display Rno, Gender, Name, DOB, Marks, Email in descending order of their marks.</p>



				29. To display the unique section available in the table.
November	Unit 4: Introduction to the Emerging Trends		Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.	<ul style="list-style-type: none"> Identify the Emerging trends in the fields of Information Technology.
December	Revision			
January	Revision			

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Unit 1: Introduction to Computer System Unit 2: Introduction to Python	Unit 1: Introduction to Computer System Unit 2: Introduction to Python List, Dictionary	Unit 3: Database Concepts and The Structured Query Language	Unit 2: Introduction to Python List, Dictionary Unit 3: Database Concepts and The Structured Query Language	Complete Syllabus



SUBJECT – ARTIFICIAL INTELLIGENCE

Month	Unit Name	Chapter Name	Sub-Unit	Learning Outcomes
July	PART-A: Employability Skills	Unit 1: Communication Skills-III		Students will be able to Understand meaning and importance of stress management & Apply stress management techniques.
		Unit 2: Self-Management Skills-III		Students will be able to demonstrate impressive appearance and grooming, teamwork skills and apply time management strategies and techniques.
	PART-B – Subject Specific Skills	Unit 1: Introduction To AI	<ul style="list-style-type: none"> • What is AI? • What is Machine Learning • What is data? • Terminology and Related Concepts • What machine learning can and cannot do. • Jobs in AI 	Students will be able to: <ul style="list-style-type: none"> • Understand what is AI? • Difference between conventional programming and machine learning. • Structured and Unstructured data. • What are the AI products/ applications in society and how are they different from non-AI products/ applications? • Different types of machine learning approach. • Understand what the jobs that are growing with AI are.
August	PART-A: Employability Skills	Unit 3: ICT Skills-III		Students will be able to create a document, edit the data, change the style of data, adding bullets, word wrap, autocorrect option and printing any document in Word processor.
	PART-B: Subject Specific Skills	Unit 2: AI Applications and Methodologies		Students will be able to understand: <ul style="list-style-type: none"> • Key Fields of Application in AI. • Characteristics and types of AI. • Cognitive Computing (Perception, Learning, Reasoning). • AI and Society. • The Future with AI, and AI in Action. • Non-technical explanation of deep learning.
		Unit 3: Math for AI		Students will be able to: <ul style="list-style-type: none"> • Appreciate the role of mathematics in AI and ML. • Linear Algebra, Statistics, Basics of Graphs and Set theory • Visual representation of data, bar graph, histogram, frequency bins, scatter plots, etc. • With co-ordinates and graphs introduction to dimensionality of data.
		Unit 4: AI Values (Ethical decision making)		Students will be able to understand: <ul style="list-style-type: none"> • AI: Issues, Concerns and Ethical Considerations • Issues and Concerns around AI • AI and Ethical Concerns • AI and Bias • AI: Ethics, Bias, and Trust • Employment and AI
September	Revision and Half Yearly Examination			
October	PART-A: Employability Skills	Unit 4: Entrepreneurial Skills-III		Students will be able to establish a foundation of confidence in the skills necessary to cause others to act.



	PART-B: Subject Specific Skills	Unit 5: Introduction to story telling		Students will be able to understand: •Storytelling: communication across the ages. • The Need for Storytelling • Story telling with data • Storytelling for audience • How to Keep the audience engaged
		Unit 6: Critical and Creative thinking		Students will be able to use Design thinking framework, Right questioning (5W and 1H), Identifying the problem to solve and ideate.
November	PART-B: Subject Specific Skills	Unit 7: Data Analysis		Students will be able to represent a simple problem in terms of numbers. Gain Knowledge on – Types of structured data, statistical principals – frequency tables, mean, median, mode, range, etc. graphical Application will be used for Representing data in terms of graphs, statistical models.
		Unit 8: Regression		Making students able to relate data with regression and correlation. Everyday applications of these mathematical concepts. – Correlations, Regression, and other related terms.
December	PART-A: Employabi lity Skills	Unit 5: Green Skills-III		Understand the basic sustainability concepts of homeostasis, carrying-capacity, and cradle-to- grave recycling, evolutionary processes.
	PART-B: Subject Specific Skills	Unit 9: Classification & Clustering		Students will be able to understand confusion matrix- True positives, true negatives, false positives and false negatives cases. Understanding Impact of the application of incorrect algorithms on society.
January	PART-B: Subject Specific Skills	Unit 10: AI Values (Bias awareness)		Student will be able to understand: • AI working for good. • Principles for ethical AI. • Types of bias (personal /cultural /societal). • How bias influences AI based decisions. • How data driven decisions can be debiased. • Hands on exercise to Detect the Bias.
February	Revision and Annual Examination			

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Part A: Unit 1: Communication Skills-III Part B: Unit 1: Introduction to Artificial Intelligence (AI)	Part A: Unit 1: Communication Skills-III Part A: Unit 2: Self- Management Skills- III Part A: Unit 3: ICT Skills-III Part B: Unit 1: Introduction to Artificial Intelligence (AI) Part B: Unit 2: AI Applications & Methodologies	Part A: Unit 4: Entrepreneurial Skills-III Part B: Unit 5: Introduction to storytelling.	Part A: Unit 1: Communication Skills-III Part A: Unit 2: Self- Management Skills- III Part A: Unit 3: ICT Skills-III, Part A: Unit 4: Entrepreneurial Skills-III, Part A: Unit 5: Green Skills- III, Part B: Unit 1: Introduction to Artificial	Part A: Unit 1: Communication Skills-III Part A: Unit 2: Self-Management Skills-III Part A: Unit 3: ICT Skills-III Part A: Unit 4: Entrepreneurial Skills-III Part A: Unit 5: Green Skills-III Part B: Unit 1: Introduction To AI



	<p>Part B: Unit 4: AI Values (Ethical Decision Making)</p>		<p>Intelligence (AI), Part B: Unit 2: AI Applications & Methodologies, Part B: Unit 4: AI Values (Ethical Decision Making), Part B: Unit 5: Introduction to Storytelling, Unit 7: Data Analysis, Unit 8: Regression, Unit 9: Classification and clustering</p>	<p>Part B: Unit 2: AI Applications & Methodologies Part B: Unit 4: AI Values (Ethical Decision Making) Part B: Unit 5: Introduction To Storytelling Part B: Unit 8: Regression</p>
--	--	--	--	--



SUBJECT – PSYCHOLOGY

Month	Name of Chapter	Objective/ Aim	Enrichment Activity	Project
April	Ch-1 What is Psychology?	After studying this chapter students would be able to: i. Develop the understanding of role mind and behavior. ii. Explain the different fields of Psychology, its discipline, and professions. iii. Develop the understanding of value of psychology in daily life to understand themselves and others better.		
May	Ch-2 Methods of enquiry	After studying this chapter students would be able to: i. Explain the goal and nature of psychological enquiry. ii. Explain the important methods of psychological enquiry. iii. Develop the understanding about the limitations of psychological enquiry and ethical considerations.		Students will prepare project by using different methods of psychological enquiry.
July	Ch-4	After studying this chapter students would be able to: i. Explain the meaning and process of development. ii. Explain and identify the stages of development and describe the major characteristics of infancy, childhood, Adolescence, adulthood, and old age		
August	Ch-5 Sensory Attentional and Perceptual Processes	After studying this chapter students would be able to: i. Develop the understanding of the nature of sensory processes. ii. Explain the types and process of attention. iii. Develop the understanding of the role of socio-cultural factors in perception.		
September	Ch-6 Learning	After studying this chapter students would be able to: i. Develop an understanding of the nature and features of learning. ii. Explain the types of learning. iii. Acquainted with the leaning principles.		
October	Ch-7 Memory	After studying this chapter students would be able to: i. Develop the understanding of the nature of memory. ii. Develop an understanding of nature and causes of forgetting. iii. Develop the skills for improving memory.	Experiment on methods of verbal Learning.	



November	Ch-8 Thinking	After studying this chapter students would be able to: <ul style="list-style-type: none"> - Understand the nature of thinking and Reasoning. - Understand the nature and process of creative thinking and learn the ways of enhancing it. - Understand the relationship between language and thought. 	Experiment based on Memory processes.	
December	Ch-9 Motivation and Emotion	After studying this chapter students would be able to: <ul style="list-style-type: none"> - Understand the nature of human motivation. - Describe the nature of some important motives. - Describe the nature of emotional expression. - Students will get to know about managing emotions. 		

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Ch. 1, 2	Ch. 4, 5	Ch. 1 to 6	Ch. 1 to 8	Complete Syllabus



SUBJECT – COMMERCIAL ART

Month	Theory	Practical	Learning Objectives
May	Unit 1: Pre-historic Rock Paintings and Art of Indus Valley (2500 B.C. to 1500 B.C.) 1 A. Pre-Historic Rock-Paintings Introduction (1) Period and Location (2) Study of following Pre-historic Paintings	Fundamentals of art,	The objective of including the history of prehistoric art for the students is to familiarize them with the various styles and modes of art expression. This would enrich their vision and enable them to appreciate and aesthetic sensibility to enjoy the beauty of nature and life.
July	Unit 1: B. Introduction (i) Period and Location. (2) Study of Sculptures and Terracottas: Unit 2: Buddhist, Jain and Hindu Art (3rd century B.C. to 8th century A.D.) (1) General Introduction to Art during Mauryan, Shunga, Kushana Gandhra and Mathura style & Gupta period: (2) Study of Sculptures:	Still life composition	The objective of including the history of Indus Valley and Religion's art for the students is to familiarize them with the various styles and modes of art expression. This would enrich their vision and enable them to appreciate and aesthetic sensibility to enjoy the beauty of nature and life.
August	Recapitulation of Unit 1 & Unit-2 (2) Study of Sculptures:	Calligraphy and texture	
September	(3) Introduction to Ajanta Location, period, No. of caves, Chaitya and Vihara, Paintings and Sculptures, subject matter, and technique etc. (4) Study of Painting & Sculpture:	Poster masking	The objective of including the history of Ajanta art for the students is to familiarize them with the various styles and modes of art expression. This would enrich their vision and enable them to appreciate and aesthetic sensibility to enjoy the beauty of nature and life.
October	Unit 3: Temples Sculpture, Bronzes and Artistic aspects of Indo-Islamic Architecture 36 Pds. (A) Artistic aspects of Indian Temple sculpture 6th Century A.D. to 13th Century A.D.) (1) Introduction to Temple Sculpture (6th Century A.D. to 13th Century A.D.) (2) Study of Temple-Sculptures.	Indian folk art	The objective of including the history of Indian temples art for the students is to familiarize them with the various style and modes of art expression. This would enrich their vision and enable them to appreciate and aesthetic sensibility to enjoy the beauty of nature and life.
November	B) Bronzes: (1) Introduction to Indian Bronzes (2) Method of casting (solid and hollow) (3) Study of south Indian Bronzes:	Master copies	The objective of including the history of Chola art for the students is to familiarize them with the various styles and modes of art expression. This would enrich their vision and enable them to appreciate and aesthetic sensibility to enjoy the beauty of nature and life.



December	(C) Artistic Aspects of the Indo-Islamic Architecture (1) Introduction (2) Study of architectures:	Revision	The objective of including the history of Indo Islamic art for the students is to familiarize them with the various style and modes of art expression. This would enrich their vision and enable them to appreciate and aesthetic sensibility to enjoy the beauty of nature and life.
-----------------	--	----------	---

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Fundamentals of Art, Pre-Historic Rock Paintings, Indus Valley Civilization and its artistic aspects	Buddhist and Jain and Hindu Art. Ajanta Caves location, technique and painting and sculpture.	Indian Temple Architecture and Sculpture, Indian Bronzes- Nataraj and Devi.	Complete Syllabus	Complete Syllabus



SUBJECT – HOME SCIENCE

Month	Name of Chapter	Objective/ Aim	Enrichment Activity	Project
April	CH-1 Introduction to Home Science Ch-2 Understanding the Self Ch-3 Food, Nutrition, Health and Fitness	-Understand different areas of home science and its scope -discuss the importance of knowing oneself and the significance of developing a positive sense of self. -list the factors that influence the development of selfhood and identity. -define the terms — food, nutrition, nutrients, health, fitness and the role of food and nutrition in maintaining health. -understand the basis for defining the Recommended Dietary Allowances (RDAs) and the difference between Dietary Requirement and RDA.	Students will write a detailed report on different domains of development related to themselves	
May	Ch-4 Management of Resources Ch-5 Fabrics Around Us	-discuss the concept of a resource. -identify various resources. -discuss the diversity in fabrics. -name and classify the fabrics commonly seen around.	Students will make handloom miniature.	Project work- Different types of fabrics (light, medium and heavy)
July	Ch-6 Media and Communication Ch-7 A. Nutrition, Health and Hygiene	-define the concept of communication. -discuss the significance of communication in everyday life -discuss the importance of health and its dimensions. -understand the interrelationship of nutrition and health.	Group activity related to different types of communication	
August	Ch-7 B. Resource Availability and Management Ch- 8 Survival, Growth and Development	-describe time and space as important resources. - analyze the need for managing time and space. -explain the concepts of survival, growth, and development. -analyze the relationship between growth and health. -make suggestions for planning balanced meals for children	Time plan	
September	Ch-9 Nutrition, Health and Wellbeing	-describe the nutritional needs of children at different stages of development.	Flow chart on Food Guide Pyramid	
October	Ch-10 Our Apparel	-discuss the clothing functions and the factors influencing selection of clothes.	Flip book on selection of clothing	



	Ch- 11 Health and Wellness	-identify general clothing needs of the children. -discuss the importance of health and fitness. -explain the health concerns and challenges of adults.		
November	Ch- 12 Financial Planning and Management	-understand the meaning and concept of financial management. -know the different types of income.	Budget making	
December	Ch- 13 Care and Maintenance of Fabrics	-understand the aspects of care and maintenance of different fabrics. -know the procedure of removing different stains.	Different stain removal activity	
January	Revision for Annual Exam			
February	Annual Exam			

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Ch. 1, 2, 3	Ch. 4, 5, 6	Ch. 1 to 8	Ch. 1 to 12	Complete Syllabus



SUBJECT – HINDUSTANI MUSIC VOCAL

Month	Name of the Topic	Objective/ Aim	Lab Activity/ Enrichment Activity	Project
April	Basics of raag & taal Alankar & teen taal	Explain the basic terms of Indian classical music.	Sargam practice in different laya in practical class.	
May	Raag Vihag General Introduction Aroh Avroh palta \$ Swar vistar Teen taal on hand.	Introduction of raag, & taal.	Sargam geet practice in raag & Basic Knowledge of taal on hands in practical class.	
July	Raag Vihag drut Khayal with Alap - taan teen taal thah, dugun chargun laykari on hands. Brief Description - Naad, Shruti, Swar, Saptak, Margee Gaan	Explain raag with notation. Taal on hands in different layakari. Knowledge of basic terms of Indian classical music.	Practice of raag & taal in detail.	
August	Raag Vihag -notation with alap taan. Raag Bhimpalasi parichay Teen taal with thah dugun & chargun laykari and taal notation. Life sketch Tansen. Dhrupad.	Introduction of bhimpalasi raag and explain raag in detail. To show different laya on hands. To know about the contribution of indian classical musician.	Practice of raag & taal in detail.	
September	Raag Bhimpalasi drut Khayal with Alap –taan Ek Taal thah & dugun on hands & taal lipi	To give knowledge of raag bhimpalasi. Explain ektaal in different laya and practice to write it.	Practice of raag & taal in detail.	
October	Raag Bhimpalasi Notation with Alap taan EkTaal thah, dugun, chargun on hands \$ taal lipi Brief Description of that, laya, raag, raag jati, khayal, Thaata, life sketch V.N Bhathkhende,	To give knowledge raag & taal. To give knowledge of basic terms of Indian music and contribution of Indian musician	Practice of raag & taal in detail.	
November	Raag Bhairvi Parichay & Drut khayal, taal char taal thah & taal lipi. Brief Description - taal, tarana, sangeet Natyashastra, Life sketch V.N Palusker, Tanpura sachit varna	Description of raag & taal through drut khyal and taal notation. Know about the life history & contribution of musicians. Explain the structure of tanpura.	Practice of raag & taal in detail.	
December	Raag Bhairvi Notation, char taal thah, dugun chargun with taal lipi, raag pehchaan \$ Bhairvee Alap -Taan	To know about the raag & taal in detail .	Practice of raag & taal in detail.	



January	Vilambit khayal /dhrupad bandish with Notation Revision of previous ragas & taal.	Explain dhrupad singing style with bandish.	Practice of raag & taal in detail.	Music practical file.
February	Vilambit khayal/dhrupad with alap /laykaree. Annual Exam	Discuss & explain raag drut khyal , dhrupad & taal.	Practice of raag & taal in detail.	

Exam Syllabus

Unit Test I	Half Yearly	Unit Test II	Qualifying	Annual
Naad, Shruti, swar, Saptak, Margee gaan, Dhrupad, Tansen, Teen taal thah, dugun chargin parichay & taal lipi, Ektaal parichay thah laya. Raag vihag parichay, pehchaan, drut khayal, Raag Bhimpalasi Parichay.	Raag Vihag drut Khayal with Alap & taan drut khayal with alap taan teen taal thah, dugun chargin laykari on hands. Brief Description - Naad, Shruti, Swar, margee gaan, Saptak, raag pehchaan Raag Vihag-notation with alap taan, raag Bhimpalasi Parichay ektaal Parichay, taal lipi life sketch of Tansen Raag & Taal parichay Dhrupad. Raag Bhimpalasi drut Khayal with Alap -taan	Raag Bhimpalasi Notation With Alap taan EkTaal thah, dugun, chargin on hands & taal lipi . Brief Description thaata, laya, raag, raag jati, khayal. Life sketch - V.N Bhathkhende, V. N Palusker, tanpure ka sachitr varnan, Raag Bhairvi Parichay & Drut khayal, taal char taal thah & taal lipi, Brief Description - taal, tarana, sangeet Natyashastra, Raag Bhairvi Notation, char taal thah, dugun chargin with taal lipi, raag pehchaan & Bhairvee Alap - Taan	Raag Bhimpalasi Notation With Alap taan, Brief Description thaata, laya, raag, raag jati, khayal. life sketch- V.N Bhathkhende, V. N Palusker, tanpure ka sachitr varnan, Raag Bhairvi Parichay & Drut khayal, Raag Bhairvi notation, Bhairvee Alap – Taan char taal thah, dugun chargin with taal lipi, Brief Description - taal, tarana, sangeet Natyashastra, raag pehchaan & Vilambit khayal /dhrupad bandish with Notation.	Raag Bhimpalasi Notation With Alap taan, Brief Description thaata, laya, raag, raag jati, khayal. life sketch- V.N Bhathkhende, V. N Palusker, tanpure ka sachitr varnan, Raag Bhairvi Parichay & Drut khayal, Raag Bhairvi notation, Bhairvee Alap – Taan char taal thah, dugun chargin with taal lipi, Brief Description - taal, tarana, sangeet Natyashastra, raag pehchaan & Vilambit khayal /dhrupad bandish with Notation.