



<u>SUBJECT – ENGLISH CORE</u>

Month	Name of Chapter	Objective/Aim	Project
April	Reading: Comprehension Passage	•	Step 1 of the Project Discussing the aim and objective
	Writing: Notice	information	of the English Project
	Report Writing (School Magazine & Newspaper)	To enhance the skill of critical thinking and presenting facts/data in a coherent manner	
	The Last Lesson	To arouse patriotic feelings and love for the mother tongue	
	Lost Spring	To create awareness about the hazards of child labour	
	My Mother at Sixty-Six	To kindle care and concern for ageing parents	
	Third Level	To make students aware of the intermingling of present and past, as a way to escape from anxiety and tension.	
	The Tiger King	To point out problems caused by the conceit of those in power	
May	Reading Comprehension		Brainstorming on the given topic and preparing the initial pages of the project file. (to be done as part of Holiday Homework)
	Writing: Invitation/Replies (Formal)	decline the invite	Q1. Art Integration- Create the cover page of the following lessons presenting symbolic meaning and aspect the lessons try to convey Lost Spring- R No 1-15 Keeping Quiet- R No 16-30 The Tiger King- R No 31-45
	Writing: Letters to the Editor	To enhance the skill of corresponding through written communication	Q2. Read, cut and paste FOUR NEWSPAPER REPORTS, rewrite any one of them in around 120 - 150 words, and record a video of the same in your voice. The recorded video should be spontaneous expression of the child and should not be a paper reading exercise. Remember, your report must answer What happened, when, where and other relevant details.
	Deep Water	To promote a 'never say die' spirit	
		To point out the relevance of educational tours in understanding global issues.	Q3. The year of 2025 has been declared by the UN as the International Year of Glaciers' Preservation. It aims to raise global awareness about the crucial





	CLASS. All	COMMERCE - BIFURCATED SYLLABUS -	2023 - 20
	CLASS: All		role glaciers play in the climate system and the impact of their melting on communities, ecosystems and economies. Discuss the objectives, plan of action and significance of this programme in detail. How does 'Journey to the End of the Earth' connect geological history with the current climate crisis? How can the lesson be considered a call to action for climate awareness?
	Keeping Quiet	To highlight the importance of introspection and mutual understanding	
July	Reading Comprehension	To enhance comprehension skills	
July	Writing: Letters- Job Application	Skill of corresponding through written communication	
	Indigo	To highlight the role of Gandhi Ji and the Champaran episode in the Freedom movement.	
	The Rattrap	To understand the value of honesty, kindness, and compassion	
	The Enemy	To promote a humanitarian approach and discard enmity	
August	Reading Comprehension	To enhance comprehension skills	Final compilation of the project
	Writing: Invitation/ Replies (Informal)	To develop the skill of extending a cordial request to invite, accept or decline the invite	file
	Writing: Article	To enhance the skill of critical thinking and presenting ideas in a coherent manner	
	Poets and Pancakes	To appreciate the struggle of people related to film industry.	
	A Thing of Beauty	To explore and enjoy the sensual beauty of nature	
	The Roadside	To draw attention towards the problems of unprivileged people of the society	
	On the Face of it	To draw attention towards the problems of physically challenged people, and sensitize the students towards their needs and feelings.	
September	Reading Comprehension	Revision	
1 2333.002	Writing: Article Writing	To develop the skill of putting forth ideas/views, and opinions coherently	
	Aunt Jennifer's Tigers	To create awareness about problems related to gender discrimination	
	The Interview	To introduce the concept of an Interview in the arena of journalism.	

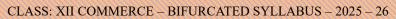




		To generate awareness about issues related to caste and creed	
		discrimination	
October	Reading Comprehension	Revision	Submission of Project File
	Writing Skills	Revision	
		To create awareness about the harms of over-fantasizing and hero Worshipping	
November	Reading: Comprehension	Revision	
	Writing: Report	Revision	
	Letter Writing	Revision	
December	Pre-Board I	Complete Syllabus	
January	Pre-Board II	Complete Syllabus	

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Reading Comprehension,	Reading Comprehension,	Reading Comprehension,	Complete Syllabus
Notice, Letter to Editor,	Notice, Invitation (Formal	Notice, Invitation	(As in Pre Board I)
Report Writing (School	& Informal) & Replies,	(Formal & Informal) &	
Magazine)	Letter to Editor, Job	Replies, Letter to Editor,	
Literature- The Last Lesson,	Application. Report	Job Application. Report	
Lost Spring, My Mother at	Writing (School Magazine	Writing (School	
Sixty-Six, Keeping Quiet,	& Newspaper), Article	Magazine & Newspaper)	
The Third Level, The Tiger	Writing	Literature- The Last	
King	Literature- The Last	Lesson, Lost Spring,	
	Lesson, Lost Spring, Deep	Deep Water, The Rattrap,	
	Water, The Rattrap,	Indigo, Poets &	
	Indigo, Poets and	Pancakes, The Interview,	
	Pancake, My Mother at	Going Places, My Mother	
	Sixty-Six, Keeping Quiet,	at Sixty Six, Keeping	
	A Thing of Beauty, The	Quiet, A Thing of	
	Third Level, The Tiger	Beauty, Aunt Jennifer's	
	King, Journey to the End	Tigers, A Roadside Stand	
	of the Earth, The Enemy	The Third Level, The	
	Internal Assessment- ASL	Tiger King, Journey to	
	& Project	the End of the Earth, , On	
		the Face of It, Memories	
		of Childhood	
		(Complete Syllabus)	







SUBJECT – ACCOUNTANCY

Month	Chapter	Learning objectives/Learning outcomes	Subject Enrichment Activity	Project
April	Accounting for Partnership Firms	 After studying this chapter students would be able to state the meaning of partnership, partnership firm and partnership deed. describe the characteristic features of partnership and the contents of partnership deed. discuss the significance of provision of Partnership Act in the absence of partnership deed. differentiate between fixed and fluctuating capital, outline the process and develop the understanding and learn the skill of preparation of Profit and Loss Appropriation Account. develop the understanding and skill of preparation profit and loss appropriation account involving guarantee of profits. develop the understanding and skill of making past adjustments. 	Relay	
May	Valuation of Goodwill. Change in Profit sharing Ratio among existing Partners. Admission of a Partner	Students would be able to understand the- Meaning, Need & Methods of Valuation of Goodwill. Students would be able to understand the - Accounting Treatment for different items in case of change in Profit sharing Ratio among existing Partners develop the understanding of accounting treatment of revaluation assets and reassessment of liabilities and treatment of reserves and accumulated profits by preparing revaluation account and balance sheet After studying this chapter students would be able to understand the effects and accounting treatment at the time of admission of a partner develop the understanding and skill of treatment of goodwill, treatment of revaluation of assets and reassessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet of the new firm.	Quiz based on formulae	
July	Retirement & Death of a Partner	 Students would be able to understand: Accounting treatment & computation of amount at the time of Retirement & Death of a Partner. develop the understanding of accounting treatment of goodwill, revaluation of assets and reassessment of liabilities and adjustment of accumulated profits and reserves on retirement/death of a partner and capital adjustment. 	Class Seminar	





	C	<u>LASS: XII COMMERCE – BIFURCATED SYLLABUS – 2025 – 20</u>	YEARS	
		 develop the skill of calculation of deceased partner's share till the time of his death and prepare deceased partner's executor's account. discuss the preparation of the accounts of the remaining partners and the balance sheet of the firm after retirement / death of a partner. 		
August	Dissolution of a Partnership firm Issue of shares	 Students would be able to understand: Accounting treatment & settlement of accounts at the time of Dissolution of a Partnership firm understand the situations under which a partnership firm can be dissolved. understand the preparation of realization account and other related accounts. Students would be able to understand the: - Accounting treatment of issue of shares for cash and consideration other than cash at par or at premium. Forfeiture and re-issue of shares Preparation of Balance Sheet depicting Share Capital 	Class Seminar Quiz on Journal Entries	
September	Issue of Debentures	 Students would be able to understand: Accounting Treatment of Issue of Debentures for Cash & Consideration other than cash at Par, Premium & Discount. develop the understanding and skill of writing of discount / loss on issue of debenture. understand the concept of collateral security and its presentation in balance sheet. develop the skill of calculating interest on debentures and its accounting treatment. 	Quiz	
October	Financial statements of a Company Analysis of Financial Statements Ratio Analysis Cash Flow Statement	 Meaning & Preparation of Balance sheet & Statement of Profit & loss of a company as per new schedule Develop the understanding of major headings and sub-headings (as per Schedule III to the Companies Act, 2013) of balance sheet as per the prescribed norms / formats. Students would be able to understand the- The meaning, objectives and limitations of financial statement analysis. Various Tools of Financial Statement Analysis. Students would be able to understand the-Meaning, significance, classification & computation of Accounting Ratios. Liquidity Ratios Solvency Ratios Activity Ratios Profitability Ratios Students would be able to understand the:- 	Presentation related to Financial Statements and Tambola Project	CBSE Specifi c Project
		 Meaning & objectives of Cash Flow Statements Preparation of CFS as per AS3. 		





November - February

Revision and Pre-Board

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Partnership Accounting-	Partnership Accounting	Partnership Accounting	Partnership Accounting
• Fundamentals	Company Accounts -	Company Accounts	Company Accounts
 Valuation of 	Issue of Shares	Analysis of Financial	Analysis of Financial
goodwill		Statements	Statements
 Change in profit 			
sharing ratio			
 Admission of a 			
partner			





<u>SUBJECT – BUSSINESS STUDIES</u>

Month	Name of the Chapter	Objective/Aim	Subject Enrichment Activity	Project
April	Nature & Significance of Management Principles of Management	 After studying this chapter students would be able to explain: The concept, objectives and importance of Management. Meaning of effectiveness and efficiency. Nature of Management. Role of Levels of Management. Functions of management. Concept and importance of Coordination. After studying this chapter students would be able to explain: Concept and importance of management principles. Principles developed by Henry Fayol. Principles and techniques of scientific management. Contributions of Fayol and Taylor. 	Dumb Charades, Role Play and project on Principles of Management.	
May	Business Environment Planning		Collage of newspaper cuttings. Project on Business Environment. Preparation of a plan for an event.	Project as per CBSE guidelines.
July	Organizing	After studying this chapter students would be able to explain: Meaning, importance and Process of organizing. Meaning of Organizational structure and Concept of Functional and Divisional Structure. Advantages, disadvantages and suitability of Functional and Divisional Structure. Concept of Formal and Informal Organisation. Advantages and disadvantages of Formal and Informal Organisation. Concept, elements and importance of Delegation. Concept and importance of Decentralisation. Difference between delegation and decentralisation.	Development of Organisational structure for the Committee for an event.	





		CLASS: All COMMERCE – BIFURCATED SYLLABUS – 202		
	Staffing	After studying this chapter students would be	Filling of posts	
		able to explain:	in the	
		• Concept and importance of staffing.	Organisational	
		• Process of staffing.	Structure	
		• Recruitment and its sources.	created.	
		• Process of selection.		
		• Specialized duties and activities performed by		
		Human Resource Management.		
		Meaning and sources of Recruitment.		
		Merits and Demerits of Internal and External		
		Sources of Recruitment.		
		 Meaning and process of selection. 		
		Concept of Training and Development.		
		• Difference between Training and Development.		
		• Importance of training to the organisation and to		
		the employees.		
		• Methods of training - on the job and off the job -		
		induction training, vestibule training,		
		apprenticeship training and internship training.		
August	Directing	After studying this chapter students would be able to	Report on	
	3	explain:	Leadership	
		• Concept and importance of directing.	styles of top 10	
		• Elements of Directing (motivation, leadership	Companies	
		and communication)	Presentation on	
		Concept of Motivation	Common	
		Maslow's Hierarchy of Needs.	Communication	
		• Financial and non-financial incentives.	Barriers	
		Concept of Leadership	(including	
		Leadership Styles	cartoons)	
		• Concept of Communication.		
		Elements of Communication Process.		
		Concept of Formal and Informal		
		Communication.		
		Barriers to effective communication.		
		Measures to overcome barriers to effective		
		communication.		
	Controlling	After studying this chapter students would be able to	Flowchart	
	Condoming	explain:	depicting	
		• Concept and importance of controlling.	process of	
		Relationship between planning and controlling.	Controlling.	
		• Steps in the process of controlling.	Condoning.	
	Consumer	After studying this chapter students would be able to		
	Protection	explain:		
	11010011011	Concept, importance and scope of consumer		
		protection.		
		 Concept of a consumer according to the 	Case Studies on	
		Consumer Protection Act, 2019.	Various	
		 Consumer rights and responsibilities. 	Judgements	
		Who can file a complaint and against whom?	given by	
		Legal redressal machinery under Consumer	Consumer	
		Protection Act, 2019.	Courts.	
		11000000111100, 2017.		





		CLASS: All COMMERCE – BIFURCALED SYLLABUS – 202	3-7-20
		 Remedies available to the consumer under Consumer Protection Act, 2019. Role of consumer organizations and NGOs in protecting consumers' interests. 	
September	Management	 After studying this chapter students would be able to explain: Concept, features and functions of Marketing. Marketing Philosophies Concept and elements of Marketing mix. Concept of Product Mix. Concept of branding, labelling and packaging. Concept of Price Mix. Factors determining price of a product. Concept of Physical Distribution. Components of Physical Distribution. Channels of Distribution. Concept of Promotion Mix. Elements of Promotion Mix. Concept of Advertising, Personal selling and Sales Promotion. Concept of Public Relations. 	Survey and project on Marketing
October	Financial Management Financial Markets	After studying this chapter students would be able to explain: Concept and role of financial management. Dijectives of Financial management. Financial decisions taken by Financial Manager and the factors affecting them. Concept, objectives importance of Financial Planning. Concept of Capital Structure and factors determining the choice of an appropriate capital structure of a company. Concept of fixed capital and factors affecting fixed capital. Concept of working Capital and factors affecting working capital. After studying this chapter students would be able to explain: Concept of Financial Market, money market and capital market. Difference between Money Market and Capital Market. Primary and Secondary Market. Difference between Primary Market and Secondary Market. Stock exchange – meaning and functions. Trading procedure in a Stock Exchange. Meaning of Depository Services and Demat Account.	Study on the working capital and fixed capital requirements of different industries. Study of Capital Structure of different companies. Role Play on Trading Procedure





November	Revision
December	Revision
January	Revision
February	Revision

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Ch. 1 to Ch. 4 (Book I)	Book I: Ch: 1 to 8	Complete Syllabus	Complete Syllabus

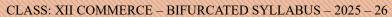




SUBJECT - ECONOMICS

Month	Name of the Chapter	Objective/Aim	Subject Enrichment Activity	Project
April	Circular flow of income Some basic concepts of Macro Economics Indian Economy on the eve of independence	To acquainting the students with circular flow of money in two sector economy,real and money flow To familiarize the students with the meaning of Meaning of Macro Economics, some basic concepts, Meaning of real and nominal National Income To familiarize the students with the state of Indian economy at the time of independence & its main features. Problems and policies of agriculture. industry and foreign trade	calculation of	
May	Measurement of National Income Indian economy (1950-1990	To make the students acquainting about GDP and its related aggregates, Value of output and value added' Three methods of calculating N.I. Income, Expenditure and Product method Students will come to know about the long-term objective of our plans to develop all the aspects of the Economy		Project
July	Money and Banking Determination of Income and employment Economic reforms since 1991	To enhance the knowledge of the students regarding Money—Its meaning. Supply of money. Money creation by commercial Banks. Central Banks—Meaning and its functions Aggregate Demand and its components, propensity to consume and save, Investment multiplier To acquainting the students regarding the need and features of LPG policy	Class presentation over fiscal and monetary measures to combat the situation of inflation and deflation.	
August	Determination of Income and employment Human capital formation Rural Development		Process of multiplier will be explained through class activity	
September	Employment	Employment-Growth, informalisation and other issues Revision & Half Yearly - Examination	Prepare a report on various schemes launched by Government to	





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October	Budget and the Economy Balance of payment Environment and sustainable development Development experience of India: A comparison with neighbors	To develop Awareness among Students about Meaning. objectives, components Revenue and capital Budget, Budget Deficit Revenue, Fiscal and Primary deficit BOP account-meaning and component Foreign Exchange Rate—Meaning of fixed, floating and managed floating exchange rate, Determinants of exchange rate in a free market. Environment and sustainable development—effects on economic development on resources and environment. To develop the awareness among students regarding comparative development of India and its neighboring countries other issues	major currencies of the world Approximately 70 lakh vehicles are added on roads of metropolitan cities. Which type of resources do you think are undergoing			
November	Revision and Pre-Board 1					
December	Revision and Pre-B	Soard 2				
January	Revision and Board	l Practicals				
February	Revision and Board	1 Exams				

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Macro Eco Chap 1-4	Macro Eco- Unit 1-3	Complete Syllabus	Complete Syllabus
IED Chap 1-2	IED Chap 1 - 5		



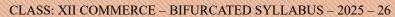




<u>SUBJECT – MATHEMATICS</u>

Month	No. and Name of Chapter	Learning Objective	Enrichment Activities
April	Ch-1 Relations and Functions Ch-2 Inverse Trigonometric Functions Ch-3 Matrices Ch-4 Determinants	To understand the different types of relations and functions along with their co-domain and range. To understand the behavior of inverse trigonometric function which plays very important role in calculus. Use of matrix in the nature of solutions of systems of simultaneous equations. To learn about determinant and	1.To verify that the relation R in the set L of all lines in a plane, defined by R = {(1, m) : 1 m} is an equivalence relation. 2.To verify that function is one but not onto 3.To verify that function is not one but onto.
May	Ch-5 Continuity and Differentiability Ch-6 Application of Derivatives	To clear the concept of continuity and differentiability and their relationship between different types of functions To use derivatives in determining the rate of change of various quantities	4.To draw the graph of sin_1x, using the graph of sin x and demonstrate the concept of mirror reflection (about the line y=x). 5.To understand the concepts of increasing and decreasing functions.
July	Ch-7 Integrals Ch-8 Application of Integrals	To find the anti-derivative of a function (also known as finding the integral) and to apply this concept to solve problems involving area calculation and related rates. To find the area bounded by the graph of a function under given conditions	6.To understand the concept of maxima &minima and verify it analytically
August	Ch-8 Application of Integrals (Cont) Ch-9 Differential Equations Revision (Half Yearly exams)	To find the area bounded by the graph of a function under given conditions To search unknown function that satisfies the equation which contain the derivative of unknown function	7.To Calculate the area of the closed curves using integration.
September	Ch-10 Vector Algebra	To study vector, that are helpful in describing and analysing many physical solutions.	
October	Ch-11 Three- Dimensional Geometry Ch-12 Linear Programming	To tell the use of vector algebra in 3D which makes its study simple and elegant. To determine the optimum values of a linear functions subject to constraints expressed a linear equation or inequalities.	8. To measure the shortest distance between two skew lines and verify it Analytically 9. To solve the Linear Programming Problem graphically.





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	Ch-13 Probability	To find the probability of different situations under the given conditions.	10.To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of dice.	
November	Pre Board I and Revision	n		
December	Pre Board II and Revisi	on		
January – February	Practical Exams and Revison			

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Ch. 1, 2, 3, 4, 5, 6.	Ch. 1 to 9	Complete Syllabus	Complete Syllabus

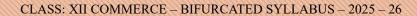




<u>SUBJECT – COMPUTER SCIENCE WITH PYTHON</u>

Month	Chapter Name	Objective / Aim	Lab Activity
March - April	Ch – 1 Review of Python Basics	Revision of the basics of Python topics covered in Class XI (Tokens; simple datatypes; notion of a variable; keywords; operators and their precedence, Conditional statements; Notion of iterative computation and control flow; Lists, tuples, and dictionary; Strings	 Input a string and determine whether it is a palindrome or not; convert the case of characters in a string. Find the largest/smallest number in a list/tuple Input a list of numbers and swap elements at the even location with the elements at the odd location. Input a list/tuple of elements, search for a given element in the list/tuple. Create a dictionary with the roll number, name and marks of n students in a class and display the
	Ch – 2 Functions	Functions: scope, parameter passing, mutable/immutable properties of data objects, pass arrays to functions, return values, Functions using libraries: mathematical, and string functions, scope of variables, main() function	names of students who have scored marks above 75. 1. Write a random number generator that generates random numbers between 1 and 6 (simulates a dice) using functions.
May	Ch – 3 Exception Handling in Python Ch – 4 Data File Handling	To make a student understand the concept of Exceptions and how to handle them. Types of errors. File handling: open and close a file, read, write, and append to a file, standard input, output, and error streams, relative and absolute paths, Types of files – Text file, Binary file, CSV file.	 WAP using try except block to implement exception and it handling. Read a text file and display the number of vowels / consonants/ uppercase/lowercase characters in the file. Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message. Create a CSV file by entering user-id and password, read and search the password for given user-id.
July	Ch – 5 Data Structures in Python Ch – 6 Computer Networks	Data-structures: lists, stacks, & various operations associated with it. Structure of a network: Types of networks, cloud and IoT, public vs. private cloud, wired and wireless networks; concept of a client and server; Network devices such as NIC, switch, hub, router, and access	Write a Python program to implement a stack using list.





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		points; MAC address, main idea of routing. IP addresses, routing table, router, DNS, and web URLs, TCP; Protocols: 2G, 3G, 4G, Wi-Fi. Basic network tools; HTTP (basic idea), working of email, secure communication: encryption and certificates (HTTPS), network applications: remote desktop, remote login, HTTP, FTP, SCP, SSH, POP/IMAP, SMTP, VoIP, NFC	
August	Ch – 7 Relational Database and SQL	Relational databases: idea of a database and the need for it, relations, keys, primary key, foreign key; Use SQL commands to create a table, keys, and foreign keys; insert/delete an entry, delete a table. Basic SQL: select, project, SQL commands: aggregation functions, having, group by, order by, joins.	Create a student table and insert data. Implement the following SQL commands on the student table: 1. ALTER table to add new attributes / modify data type / drop attribute 2. UPDATE table to modify data 3. ORDER By to display data in ascending / descending order 4. DELETE to remove tuple(s) 5. GROUP BY and find the min, max, sum, count and average • Similar exercise may be framed for other cases.
September	Half Yearly Exa	mination	1
October	Ch – 8 Interface Python With SQL	Interface Python with an SQL database, connecting SQL with Python, creating database connectivity applications, perform insert, update & delete queries, display data by using fetchone(), fetchall() & rowcount.	Integrate SQL with Python by importing suitable module.
November	Revision		

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 to solve.

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Ch - 1, 2, 3, 4	Ch − 1 to 7	Complete Syllabus	Complete Syllabus





<u>SUBJECT – INFORMATICS PRACTICES</u>

Month	Unit Name	Chapter Name	Objective / Aim	Lab Activity
March & April	Unit 1: Data Handling using Pandas and Data Visualizatio n	Data Handling using Pandas -I	Introduction to Python libraries- Pandas, Matplotlib. Data structures in Pandas - Series and data frames. Series: Creation of series from ndarray, dictionary, scalar value; mathematical operations; series attributes, head and tail functions; selection, indexing and slicing. Data Frames: creation of data frames from dictionary of series, list of dictionaries, text/CSV files, display, iteration. Operations on rows and columns: add add (insert /append), select, delete (drop column and row), rename, Head and Tail functions, indexing using labels, Boolean indexing, joining, merging and concatenation of data frames. Importing/Exporting Data between CSV files and Data Frames. (For practical's only)	 Create a panda's series from a dictionary of values and a ndarray Given a Series, print all the elements that are above the 75th percentile.
May & July		Data handling using Pandas – II Data Visualizati on	Descriptive Statistics: max, min, count, sum, mean, median, mode, quartile, Standard deviation, variance. Data Frame operations: Aggregation, group by, Sorting, Deleting and Renaming Index, Pivoting. Handling missing values – dropping and filling. Importing/Exporting Data between MySQL database and Pandas. Purpose of plotting, drawing, and saving of plots using Matplotlib (line plot, bar graph, histogram, pie chart, frequency polygon, box plot and scatter plot).	 Create a Data Frame quarterly sales where each row contains the item category, item name, and expenditure. Group the rows by the category and print the total expenditure per category. Create a data frame for examination results and display row labels, column labels data types of each column and the dimensions. Filter out rows based on different criteria such as duplicate rows. Importing and exporting data between pandas and CSV file Given the school result data, analyses the performance of the students on different parameters, e.g subject wise or class wise.





			WINDERCE - BIT ORCATED STEERBOS - 2023	 For the Data frames created above, analyze, and plot appropriate charts with title and legend. Take data of your interest from an open source (e.g., data.gov.in), aggregate and summarize it. Then plot it using different plotting functions of the Matplotlib library.
August	Unit 4: Societal Impacts	Societal Impacts	Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open-source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. E-waste: hazards and management. Awareness about health concerns related to the usage of technology.	Explain the impact of technology on society including gender and disability issues.
	Unit 2: Database Query using SQL	Database Query using SQL	Math functions: POWER (), ROUND (), MOD (). Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). Querying and manipulating data using Group by, Having, Order by. Operations on Relations - Union, Intersection, Minus, Cartesian Product, JOIN (Cartesian Join, Equi Join, Natural Join)	 Create a student table with the student id, name, and marks as attributes where the student id is the primary key. Insert the details of a new student in the above table. Delete the details of a student in the above table. Use the select command to get the details of the students with marks more than 80. Find the min, max, sum, and average of the marks in a student marks table. Find the total number of customers from each country in the table (customer ID, customer Name, country) using group by.





				7. Write a SQL query to order the (student ID, marks) table in descending order of the marks
October & November	Unit 3: Introduction to Computer Networks	Introducti on to Computer Networks	Introduction to networks, Types of networks: LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh. Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP. Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website. Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies	 Learn terminology related to networking and the internet. Identify internet security issues and configure browser settings.

Project Work:

The aim of the class project is to create tangible and useful IT applications. The learner may identify a real-world problem by exploring the environment. e.g., Students can visit shops/business places, communities or other organizations in their localities and enquire about the functioning of the organization, and how data are generated, stored, and managed.

The learner can take data stored in csv or database file and analyze using Python libraries and generate appropriate charts to visualize. If an organization is maintaining data offline, then the learner should create a database. using MySQL and store the data in tables. Data can be imported in Pandas for analysis and visualization. Learners can use Python libraries of their choice to develop software for their school or any other social good. Learners should be sensitized to avoid plagiarism and violation of copyright issues while working on projects. Teachers should take necessary measures for this. Any resources (data, image etc.) used in the project must be suitably referenced.

The project can be done individually or in groups of 2 to 3 students. The project should be started by students at least 6 months before the submission deadline.

Terminal	Half Yearly	Pre-Board I	Pre-Board II
UNIT-I	UNIT-I	UNIT-I	Complete Syllabus
Data Handling using	Data Visualization	Data Handling using	
Pandas-I	UNIT-IV	Pandas -I	
Data Handling using	Societal Impacts	Data Handling using	
Pandas-II	UNIT-II	Pandas -II	
	Database Query using	Data Visualization	
	SQL	UNIT-IV	
		Societal Impacts	
		UNIT -II	
		Database Query using	
		SQL	





SUBJECT – ARTIFICIAL INTELLIGENCE

Month	Unit Name	Learning Outcomes
April	Part A: Unit I:	Students will be able to:
11/2	Communicatio	Identify the barriers to active listening.
	n Skills IV	Identify the stages of active listening.
		Follow the steps towards removing barriers for active listening.
		Demonstrate basic writing skills.
		• Identify the basic parts of speech, such as nouns, pronouns, adjectives,
		verbs and adverbs.
		Use capitalization and punctuation rules for sentences.
		• Explain the usage of parts of speech and identify them in a sentence.
		Identify supporting parts of speech, such as articles, conjunctions,
		prepositions and interjections.
		Identify the different parts of a sentence.
		Differentiate between active and passive voice.
		Compose different types of sentences.
	Part B: Unit I:	Apply the fundamental concepts of the NumPy and Pandas libraries to
	Python	perform data manipulation and analysis tasks
	Programming	• Import and export data between CSV files and Pandas Data Frames,
	II	ensuring data integrity and consistency
	Part B: Unit II:	Integrate Data Science Methodology steps into the Capstone Project.
	Data Science	Identify the best way to represent a solution to a problem.
	Methodology:	Understand the importance of validating machine learning models
	An Analytic	Use key evaluation metrics for various machine learning tasks
	Approach to	
	Capstone	
	Project	
May	Part A: Unit II:	Explain the meaning of motivation.
	Self-	Describe the type of motives.
	Management	Differentiate between intrinsic and extrinsic motivation.
	Skills IV	Describe the meaning of positive attitude.
		• Identify the steps for being positive in life.
		Identify ways to be result oriented.
		Make an action plan.
		Explain the meaning of personality.
		Describe basic personality traits.
		Describe common personality disorders.
	Part B: Unit I:	Apply the fundamental concepts of the NumPy and Pandas libraries to
	Python	perform data manipulation and analysis tasks
	Programming	 Import and export data between CSV files and Pandas Data Frames,
	II	ensuring data integrity and consistency
	Part B: Unit	
		• Explain computer vision and its significance in visual data analysis.
	III: Making Machines See	Understand key stages of computer vision, including acquisition,
	Wacinites See	preprocessing, feature extraction, and analysis.
		• Identify real-world applications in fields like healthcare, surveillance,
		and autonomous vehicles.
		• Analyze challenges such as ethics, privacy, and technical limitations.
		Explore future advancements and transformative potential of computer
		vision.
		Develop basic skills in using OpenCV and deploying machine learning





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Inly	Part A. Unit	
July	Part A: Unit III: ICT Skills	• Explain the importance and usage of spreadsheets, list different
	IV Skills	spreadsheet applications, open LibreOffice Calc and create a spreadsheet,
	14	identify components (parts) of a spreadsheet.
		• Identify type of data, open a spreadsheet, enter, edit and delete data,
		select multiple cells, save and close a spreadsheet, print a spreadsheet.
		• Add values directly in a spreadsheet, add values using formulas, add
		values using Sum() function, align (arrange) text in a cell, fit text into a
		cell, highlight the text.
		Sort data, add filters, protect spreadsheets with a password.
		• Describe the advantages of digital presentation, list various presentation
		software, list features of a presentation, create a new presentation, save a
		presentation, close a presentation, open a presentation, print presentation
		slides.
	Part B: Unit	Develop proficiency in utilizing the Orange Data Mining tool, enabling
	IV: AI with	them to navigate its interface, employ its features, and execute data
	Orange Data	analysis tasks effectively.
	Mining Tool	Demonstrate the ability to apply Orange in real-world scenarios across
		diverse domains of artificial intelligence, including data science,
		computer vision, and natural language processing (NLP), through hands-
	D (2 ** ** ** **	on projects and case studies
	Part B: Unit V:	Understanding Big Data, its types, advantages and disadvantages.
	Introduction to	Recognize the characteristics of Big Data.
	Big Data and	• Explain the concept of Big Data Analytics and its significance.
	Analytics	Analyze the future trends in the field of Big Data Analytics.
		Understanding the term Mining Data Streams.
August	Part A: Unit	Explain the qualities of an entrepreneur.
	IV:	What is entrepreneurship?
	Entrepreneuria	Identify barriers and fears related to becoming an entrepreneur.
	l Skills IV	Identify the attitudes that make an entrepreneur successful.
	Part B: Unit	Explain the basic structure and components of a neural network.
	VI:	Identify different types of neural networks and their respective
	Understanding	applications.
	Neural	Understanding machine learning and neural networks through
	Networks	hands-on projects, interactive tools, and Python programming.
	Part B: Unit	How Generative AI works.
	VII:	Differentiate between Generative AI and Discriminative AI and identify
	Generative AI	their use cases.
		Explore ethical, social, and legal concerns.
		Gain hands-on experience using AI tools to generate creative and
		analytical outputs, such as images, texts, and videos.
		Use the Gemini API to design and deploy a functional chatbot.
September	Revision and Half	Yearly Examination
October	Part A: Unit V:	Understand the need of protecting environment
	Green Skills IV	Understand Green jobs and its significance
	Part B: Unit	Understand the benefits of storytelling.
	VIII: Data	Appreciate the role of data storytelling in data analysis, data science, and
	Story Telling	AI.
		 Learn to combine data, visuals, and narrative to present complex
		information effectively.
		 Gain skills to draw meaningful insights from data stories.
		Com oning to their incuming its morning that stories.







November	Revision and Pre-Board I
December	Revision and Pre-Board II
January	Revision and Practical Examination.
February	Revision

Terminal Test	Half Yearly	Pre – Board I	Pre – Board II
Part A: Unit I, II	Part A: Unit I, II, III, IV	Complete Syllabus	Complete Syllabus
Part B: Unit II, III	Part B: Unit II, III, V, VI		





SUBJECT – PSYCHOLOGY

Month	Name of the Chapter	Objective/ Aim	Lab Activity / Enrichment Activity	Project
April	Ch-1 Variations in Psychological Attributes	 After studying this chapter students would be able to: Develop the understanding of the importance of individual differences in human functioning. Explain different methods used to assess psychological attributes. Develop the understanding of how intelligence has different meanings in different cultures. 	Intelligence Test	
May	Ch-2 Self and Personality	 After studying this chapter students would be able to: Develop the understanding of concepts of self and learn ways for self- regulation of behavior. Learn different methods of Personality assessment. Develop insight into the development of a healthy personality. 	Personality Test	Developm ent of Case Profile: Using appropriat e Methods like Interview, Observatio n & Psycholog ical Tests.
July	Ch-3 Meeting Life Challenges Ch- 4 Psychological Disorders	 After studying this chapter students would be able to: Develop an understanding of nature, type, and sources of stress as life challenges. Learn ways to cope with stress. Develop the understanding of the factors that promote positive health and well-being. After studying this chapter students would be able to: Develop the understanding of the basic issues in abnormal behavior and criteria used to identify such behavior. Explain the different models of abnormal behavior. Describe the major psychological disorders. 	Self- concept Test	
August	Ch-5 Therapeutic Approaches	 After studying this chapter students would be able to: Familiarize themselves with the basic nature and process of Psychotherapy. Understand the use of psychological forms of intervention. Develop the understanding of how people with mental disorders can be rehabilitated. 	Interest Test	





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September	Ch-6 Attitude and Social Cognition	 After studying this chapter students would be able to: Understand what attitudes are, how they are formed and changed. Analyze how people interpret and explain the behavior of others. Comprehending the presence of others influences our behavior. 	Anxiety Test	
October -	Ch-7 Social Influence and Group Process	After studying this chapter students would be able to: Develop an understanding of nature and types of groups and know how they are formed. Examine the influence of groups on individual behavior. Describe the process of cooperation and competition.		
November - February	Revision & Pre	- Board Examination		

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Ch: 1 & 2	Ch: 1 to 4	Complete Syllabus	Complete Syllabus





SUBJECT - COMMERCIAL ART

Month	Name of the Lesson	Learning Objectives
April	Ch. 1- Rajasthani school of miniature paintings	The objective of including the history of
1	1. Origin and development.	Rajasthani paintings for the students is to
	2. Sub school of Rajasthani school -	familiarize them with the various styles and
	i. Mewar	modes of art expression from different parts
	ii. Kishangarh.	of Rajasthani. This would enrich their vision
	iii. Jodhpur.	and enable them to appreciate and aesthetic
	iv. Jaipur.	sensibility to enjoy the beauty of nature and
	v. Bikaner.	life.
	vi. Bundi.	inc.
	3. Main features or characteristics of Rajasthani	
	miniature paintings.	
	4. Study of some famous paintings.	
May	Ch. 2- Pahari school of miniature paintings	The objective of including the history of
May	1. Origin and development	Pahari paintings for the students is to
	2. Sub school of Pahari school of miniature-	familiarize them with the various styles and
	i. Basohli.	modes of art expression from different parts
	ii. Guler.	of Pahari. This would enrich their vision and
	iii. Kangra.	enable them to appreciate and aesthetic
	iv. Chamba.	sensibility to enjoy the beauty of nature and
	v. Garhwal	life.
	3. Main features or characteristics	mc.
	4. Study of some famous paintings	
July	Ch. 3- Mughal school of miniature paintings	The objective of including the history of
July	1. Origin and development of Mughal school of	Mughal and Decani paintings for the
	miniature.	students is to familiarize them with the
	2. Main features or characteristics	various style and modes of art expression
	3. Study of some famous paintings	from different parts of Mughal. This would
	Ch. 4- Decani school of miniature paintings	enrich their vision and enable them to
	1. Origin and development of Decani school of	appreciate and aesthetic sensibility to enjoy
	miniature.	the beauty of nature and life.
August	Sub school of Decani school -	The objective of including the history of
August		
		Decani and Bengal paintings for the students is to familiarize them with the various style
	11. Golkonda. iii. Bijapur.	and modes of art expression from different
	iv. Hyderabad.	parts of Deccan and Bengal. This would
	v. Berar.	enrich their vision and enable them to
	3. Main features or characteristics,	appreciate and aesthetic sensibility to enjoy
	4. Study of some famous paintings.	the beauty of nature and life.
	Ch. 5- Bengal school of paintings	the beauty of nature and me.
	1. Evolution of Indian national flag	
September	2. (A) Origin and development of Bengal school	The objective of including the history of
September	of paintings.	Bengal paintings for the students is to
	(B) Main features or characteristics	familiarize them with the various styles and
	3. Contribution of Indian artist in the struggle for	modes of art expression from different parts
	national freedom movement.	of Bengal. This would enrich their vision
	4. Study of some famous paintings	and enable them to appreciate and aesthetic
	1. Study of some famous paintings	sensibility to enjoy the beauty of nature and
		life.
October	Ch. 6- The modern trends in Indian art	This would enable and enrich in students'
October	1. Introduction	artistic sense and sensibility towards Indian
	1. Introduction	artistic sense and sensitinity towards indiali



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	2. Study of following works of contemporary	Modern art Paintings, Graphic print and
	(modern) Indian art.	Sculptures.
	3. 1 – Paintings, 2 - Graphic print, 3 - Sculptures	
November	Revision	

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Rajasthani school of	Rajasthani to Decani	Whole Syllabus	Whole Syllabus
miniature, Pahari school	school of miniature		
of miniature, Mughal	paintings, Indian national		
school of miniature	flag, Bengal school of art.		





SUBJECT – HOME SCIENCE

Month	Name of the Chapter	Objective/ Aim	Lab Activity/ Enrichment Activity	Project
April	Ch.1 Work, livelihood, and career. Ch.2 Clinical Nutrition Ch.3 Public Health and Nutrition	 Explain meaningful work, livelihood, careers, and entrepreneurship. Understand the concepts of standard of living and quality of life. Understand and describe the significance and scope of clinical nutrition and dietetics. Describe the role and function of a dietitian/clinical nutritionist/ medical nutrition therapist. Understand the significance and scope of public nutrition. 	Planning of therapeutic meals	
		Have knowledge about the nutritional problems of public health significance.		
May	Ch.4 Food Processing Ch.5 Food Quality and Food Safety	 understand what food processing and technology is, its history, development and present status. Explain the significance and basic concepts of the subject. Explain the importance of various issues related to food safety and quality. Understand how food-borne illnesses occur 	Prepare a PPT on different types of hazards	Project work
July	Ch.6 Early Childhood Care and Education Ch.7 Management of Support Services, Institutions and Programmes for Children, Youth and Elderly	 understand the basic principles of Early Childhood Care and Education (ECCE) as they apply to Indian society. Understand the importance of early care and learning experiences for children. Explain why services, institutions and programmes are needed for children, youth, and elderly. Describe the aspects involved in management of institutions and programmes 		
August	Ch. 8 Design for Fabric and Apparel Ch. 9 Fashion Design and Merchandising Ch. 10 Care and Maintenance of Fabric	 Discuss the concepts of design. Recognise the elements that constitute design. Describe the fundamentals of fashion. Discuss the significance of care and maintenance of fabrics and textile products 	Flip book on principles/ elements of design	





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September	Ch. 11 Hospitality Management	 Explain the importance of hospitality management. Describe the functioning of housekeeping department. 	Flow chart on different functions of housekeeping department		
October	Ch. 12 Consumer Education Ch. 13 Development Communication and Journalism	 Understand the role of Consumer Education and Protection Understand the importance of development Communication and Journalism for social change and development 	Prepare own food label of any product	Survey on different laws for consumers.	
November	Pre-Board I		11		
December	Pre-Board II				
January	Revision				
February	Revision				

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Ch-1 Work, Livelihood	Ch-1 Work, Livelihood	Whole Syllabus	Whole Syllabus
and Career	and Career	THE Y ALLEY	
Ch-2 Clinical Nutrition	Ch-2 Clinical Nutrition		
Ch-3 Public Health and	Ch-3 Public Health and		
Nutrition	Nutrition		
Ch-4 Food Processing	Ch-4 Food Processing		
Ch-5 Food Quality and	Ch-5 Food Quality and		
Food Safety	Food Safety		
Ch-6 Early Childhood	Ch-6 Early Childhood	W Allendaria	
Care and Education	Care and Education		
	Ch-7 Management of		
	Support Services,		
	Institutions and		
	Programmes for Children,		
	Youth and Elderly		
	Ch- 8 Design for Fabric		
	and Apparel		
/ /	Ch-9 Fashion Design and		
	Merchandising		
	Ch- 10 Care and		
	Maintenance of Fabric		





SUBJECT – HINDUSTANI MUSIC VOCAL

Month	Name of the Topic	Objective/ Aim	Lab Activity/ Enrichment Activity	Project
April	Raag Bageshree parichay,\$ drut khayal, Taal Roopak parichay,\$ taal notation thah,dugun,tigun \$ chargun Brief Description- Alankar, Meend, Kan, Gram, Murcchna, Life Sketch- Bade Gulam Ali Khan, \$ Sangeet Ratnaker. Time theory of Raag	Basic knowledge of raag bageshree Knowledge of different laykaari through taal roopak on hands Knowledge of basic terms of classical music. Understand the contribution of our legend in classical music. Explain to decide the time of raag.	Practice of Raag & taal in practical class.	
May	Raag Bhairav, Vilambit Khayal with Notation \$ Alap -Taan. Raag Bhairav parichay \$ drut Khayal. jhaptaal parichay Thah, dugun Life Sketch- Faiyaaz Khan. Murkee, Alap -Taan. Time theory of Raag	To give knowledge of Vilambit laya through vilambit khayal. Basic knowledge of raag malkauns. To give basic knowledge of taal and different laykaari. Understand the contribution of our legend in classical music. To give knowledge of basic terms of classical music.	Practice of Raag & taal in practical class.	Music Practical file.
July	Raag Bhairav and raag bageshree drut khyal with alaap taan. Notation of taal roopak & jhaptaal on hands.	Practical knowledge of raag in detail. Recite taal on hands in different laya.	Practice of Drut khyal with alaap taan in practical class.	
August	Raag Malkauns Tarana & drut Khayal with Alap -Taan Taal Jhap taal Tigun & chargun laykari Taal Dhamar parichay & thah, dugun, tigun and chargun laykari. Time theory of raag Sangeet parijaat khatka Murki, gamak.	Practice of laya through tarana (Madhya to drut laya) To give basic knowledge of taal and different laykaari. Practice of taal in different laya. Explain to decide the time of particular raag. Discuss classical music of ancient time through sangeet parijaat. To give basic knowledge of alankarik kriya.	Practice of tarana, drut khyal & taal in practical class.	
September	Raag Malkauns drut Khayal with Alap taan, Taal Dhamar Dugun, tigun & chargun taal notation. Life Sketch-Krishan rao Shanker Pandit, Tuning of taan pura.	Practical knowledge of raag in detail. Practice of taal in different laya. Understand the contribution of our legend in classical music. Explain the structure & tuning of taanpura through demonstration.	Demonstration of raag, taal & taanpura.	
October	Raag Malkauns Parichay Dhamar in raag malkauns thah \$ dugun.laykari \$ Notation. Raag Bhairav Vilambit Khayal	Basic introduction of raag malkauns. Practice of our ancient singing style Dhamar and vilambit khayal.	Practice of raag, drut khyal & dhamar in practical class.	



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November	Malkauns- Dhamar with laykari. Tarana with Notation. Raag Bhairav and Bageshri drut khayal with Alap -Taan and notation.	Practice of raag, taal & tarana in detail.	Practice & demonstration of different raag & taal.
	Revision and Pre-Board I		
December	Pre-Board II		
January	Revision		

Terminal	Half Yearly	Pre-Board I	Pre-Board II
Raag Bageshree parichay	Raag malkuns drut	Alankar, kan, Meend,	Alankar, kan, Meend,
swar vistar, vilambit &	khayal, tarana & dhamar	khatka, Murki, Gamak,	khatka, Murki, Gamak,
drut khayal notation with	with notation. Raag	Alap, Taan, Gram,	Alap, Taan, Gram,
Alap taan, raag bhairav	Bhairav Vilambit & drut	Murchhna. Sangeet	Murchhna. Sangeet
parichay, drut khyal	khayal notation Taal	Ratnakar, Sangeet	Ratnakar, Sangeet
notation, Taal Roopak &	Roopak, Jhaptaal &	Parizaat. Bade Gulam Ali	Parizaat. Bade Gulam Ali
Jhap taal with layekaree	dhamar parichay &	Khan, Ali Khan, Faiyaaz	Khan, Ali Khan, Faiyaaz
& Taal Notation. topics-	notation with laykaree.	Khan, Krishan Rao	Khan, Krishan Rao
Alankar, Meend, Kan,	topics- time theory of	Shanker pandit, Time	Shanker pandit, Time
Gram, Murchhna,	raag, Sangeet Parijaat,	theory of raag, Tuning of	theory of raag, Tuning of
Sangeet Ratnaker.	tuning of Taan pura	Taan pura, Taal Roopak,	Taan pura, Taal Roopak,
Murkee, Alap taan, Bade	krishan shanker rao	Jhap taal, Dhamar	Jhap taal, Dhamar
Gulam Ali Khan, &	pandit,Bade Gulam Ali	parichay notation in	parichay notation in
Faiyaaz Khan. Time	Khan. Sangeet Ratnakar,	laykaree. Raag Bageshree,	laykaree. Raag Bageshree,
theory of raag, raag	Murchhna, gram,	Malkauns, & Bhairav	Malkauns, & Bhairav
pehchaan.	Alankar, Meend,	parichay, swar vistar, raag	parichay, swar vistar, raag
	Kan, Murkee, Alap taan,	pehchaan, notation, drut	pehchaan, notation, drut
	Raag pehchaan.	and vilambit khayal -	and vilambit khayal -
		dhamar, & tarana, Raag	dhamar, & tarana, Raag
		pehchaan.	pehchaan.