

English Core
Code No. 301
Class XI (2021-22)
Term Wise Syllabus

SECTION	TERM I	WEIGHTAGE (IN MARKS)	TERM II	WEIGHTAGE (IN MARKS)
A	Reading Comprehension: <ul style="list-style-type: none"> Unseen passage (factual, descriptive or literary/ discursive or persuasive) Case Based Unseen (Factual) Passage 	8 + 5 = 13	Reading Comprehension: <ul style="list-style-type: none"> Unseen passage (factual, descriptive or literary /discursive or persuasive) Unseen passage for Note Making and Summarising 	8 + 5 = 13
B	Creative Writing Skills and Grammar: <p>Short Writing Tasks</p> <ul style="list-style-type: none"> Notice Writing <p>Long Writing Tasks</p> <ul style="list-style-type: none"> Business or Official Letters(Making enquiries, registering complaints, asking for or giving information, placing orders and sending replies) Speech <p>Grammar</p> <ul style="list-style-type: none"> Determiners Tenses Re-ordering of Sentences <p>{MCQs on Gap filling/ Transformation of Sentences}</p>	3 + 5 + 4 = 12	Creative Writing Skills and Grammar: <p>Short Writing Tasks</p> <ul style="list-style-type: none"> Posters <p>Long Writing Tasks</p> <ul style="list-style-type: none"> Official Letters: e.g. to school/college authorities (regarding admissions, school issues, requirements / suitability of courses) Debate <p>Grammar</p> <ul style="list-style-type: none"> Determiners Tenses Re-ordering of Sentences <p>{MCQs on Gap filling/ Transformation of Sentences }</p>	3 + 5 + 4 = 12
C	Literature: Literary-prose/poetry extracts (seen- texts) comprehension and appreciation. (Two Extracts) Questions Based on Texts to assess comprehension and appreciation, analysis, inference, extrapolation <p>Book-Hornbill:</p> <ul style="list-style-type: none"> The Portrait of a Lady (<i>Prose</i>) A Photograph (<i>Poem</i>) “We’re Not Afraid to Die... if We Can All Be Together” (<i>Prose</i>) Discovering Tut: the Saga Continues The Laburnum Top (<i>Poem</i>) Landscape of the Soul (<i>Prose</i>) <p>Book-Snapshots:</p> <ul style="list-style-type: none"> The Summer of the Beautiful White Horse(<i>Prose</i>) The Address (<i>Prose</i>) Ranga’s Marriage (<i>Prose</i>) 	9 Marks for Hornbill + 6 Marks for Snapshots = 15 Marks	Literature: Questions based on extracts/texts to assess comprehension and appreciation, analysis, inference, extrapolation <p>Book-Hornbill:</p> <ul style="list-style-type: none"> The Voice of the Rain (<i>Poem</i>) The Ailing Planet: The Green Movement’s Role (<i>Prose</i>) The Browning Version(<i>Play</i>) Childhood (<i>Poem</i>) Silk Road (<i>Prose</i>) <p>Book-Snapshots:</p> <ul style="list-style-type: none"> Albert Einstein at School (<i>Prose</i>) Mother’s Day (<i>Play</i>) Birth (<i>Prose</i>) 	9 Marks for Hornbill + 6 Marks for Snapshots = 15 Marks
	TOTAL	40	TOTAL	40
	ASL	10	ASL	10
	GRAND TOTAL	40 + 10 = 50 MARKS	GRAND TOTAL	40 + 10 = 50 MARKS

Prescribed Books

1. **Hornbill:** English Reader published by National Council of Education Research and Training, New Delhi
2. **Snapshots:** Supplementary Reader published by National Council of Education Research and Training, New Delhi

English Core
Code No. 301
Class XII (2021-22)
Term Wise Syllabus

SECTION	TERM 1	WEIGHTAGE (IN MARKS)	TERM II	WEIGHTAGE (IN MARKS)
A	Reading Comprehension: (Two Passages) <ul style="list-style-type: none"> • Unseen passage (factual, descriptive or literary/ discursive or persuasive) • Case Based Unseen (Factual) Passage 	14 (8+6 Marks)	Reading Comprehension: (Two Passages) <ul style="list-style-type: none"> • Unseen passage (factual, descriptive or literary/ discursive or persuasive) • Case Based Unseen (Factual) Passage 	14 (8+6 Marks)
B	Creative Writing Skills : <u>Short Writing Tasks</u> <ul style="list-style-type: none"> • Notice Writing • Classified Advertisements <u>Long Writing Tasks(One)</u> <ul style="list-style-type: none"> • Letter to an Editor (giving suggestions or opinion on issues of public interest) • Article Writing 	3+5 marks Total=08	Creative Writing Skills : <u>Short Writing Tasks</u> <ul style="list-style-type: none"> • Formal & Informal Invitation Cards or the Replies to Invitation/s <u>Long Writing Tasks(One)</u> <ul style="list-style-type: none"> • Letter of Application for a Job • Report Writing 	3+5 Marks Total=08
C	Literature : Literary-prose/poetry extracts (seen- texts) to assess comprehension and appreciation, analysis, inference, extrapolation Questions Based on Texts to assess comprehension and appreciation, analysis, inference, extrapolation <u>Book- Flamingo (Prose)</u> <ul style="list-style-type: none"> • The Last Lesson • Lost Spring • Deep Water <u>Book-Flamingo (Poetry)</u> <ul style="list-style-type: none"> • My Mother at Sixty-Six • An Elementary School Classroom in a Slum • Keeping Quiet <u>Book-Vistas (Prose)</u> <ul style="list-style-type: none"> • The Third Level • The Enemy 	11 Marks for Flamingo + 7 Marks for Vistas = 18 Marks	Literature: Questions based on extracts/texts to assess comprehension and appreciation, analysis, inference, extrapolation <u>Book-Flamingo (Prose)</u> <ul style="list-style-type: none"> • The Rattrap • Indigo <u>Book-Flamingo (Poetry)</u> <ul style="list-style-type: none"> • A Thing of Beauty • Aunt Jennifer's Tigers <u>Book-Vistas (Prose)</u> <ul style="list-style-type: none"> • Should Wizard Hit Mommy? • On the Face of It • Evans Tries an O Level 	11 Marks for Flamingo + 7 Marks for Vistas = 18 Marks
	TOTAL	40	TOTAL	40
	ASL	10	ASL	10
	GRAND TOTAL	40 + 10 = 50	GRAND TOTAL	40 + 10 = 50

Prescribed Books

1. **Flamingo:** English Reader published by National Council of Education Research and Training, New Delhi
2. **Vistas:** Supplementary Reader published by National Council of Education Research and Training, New Delhi

ACCOUNTANCY (Code No. 055)

Rationale

The course in accountancy is introduced at plus two stage of senior second of school education, as the formal commerce education is provided after ten years of schooling. With the fast changing economic scenario, accounting as a source of financial information has carved out a place for itself at the senior secondary stage. Its syllabus content provide students a firm foundation in basic accounting concepts and methodology and also acquaint them with the changes taking place in the preparation and presentation of financial statements in accordance to the applicable accounting standards and the Companies Act 2013.

The course in accounting put emphasis on developing basic understanding about accounting as an information system. The emphasis in Class XI is placed on basic concepts and process of accounting leading to the preparation of accounts for a sole proprietorship firm. The students are also familiarized with basic calculations of Goods and Services Tax (GST) in recording the business transactions. The accounting treatment of GST is confined to the syllabus of class XI.

The increased role of ICT in all walks of life cannot be overemphasized and is becoming an integral part of business operations. The learners of accounting are introduced to Computerized Accounting System at class XI and XII. Computerized Accounting System is a compulsory component which is to be studied by all students of commerce in class XI; whereas in class XII it is offered as an optional subject to Company Accounts and Analysis of Financial Statements. This course is developed to impart skills for designing need based accounting database for maintaining book of accounts.

The complete course of Accountancy at the senior secondary stage introduces the learners to the world of business and emphasize on strengthening the fundamentals of the subject.

Objectives:

1. To familiarize students with new and emerging areas in the preparation and presentation of financial statements.
2. To acquaint students with basic accounting concepts and accounting standards.

3. To develop the skills of designing need based accounting database.
4. To appreciate the role of ICT in business operations.
5. To develop an understanding about recording of business transactions and preparation of financial statements.
6. To enable students with accounting for Not-for-Profit organizations, accounting for Partnership Firms and company accounts.

Accountancy (Code No.055)

Course Structure

Class-XI (2021-22)

TERM – 1 (MCQ BASED QUESTION PAPER)		MARKS
THEORY :40 MARKS	TIME: 90 minutes	
Part A: FINANCIAL ACCOUNTING-I		
UNIT 1		
THEORETICAL FRAMEWORK:		12
1	INTRODUCTION TO ACCOUNTING	
2	THEORY BASE OF ACCOUNTING	
UNIT 2		
ACCOUNTING PROCESS:		28
RECORDING OF BUSINESS TRANSACTIONS, BANK RECONCILIATION STATEMENT, DEPRECIATION, PROVISIONS AND RESERVES		
TOTAL		40
Project Work (Part -1): 10 Marks		

PART A: FINANCIAL ACCOUNTING - I

Unit-1: Theoretical Framework

Units/Topics	Learning Outcomes
Introduction to Accounting <ul style="list-style-type: none">Accounting- concept, objectives, advantages and limitations, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business.Basic Accounting Terms- Business Transaction, Capital, Drawings. Liabilities (Non Current and Current). Assets (Non Current, Current); Fixed assets (Tangible and Intangible), Expenditure (Capital and Revenue), Expense, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount)	After going through this Unit, the students will be able to: <ul style="list-style-type: none">describe the meaning, significance, objectives, advantages and limitations of accounting in the modern economic environment with varied types of business and non-business economic entities.identify / recognise the individual(s) and entities that use accounting information for serving their needs of decision making.explain the various terms used in accounting and differentiate between different related terms like current and non-current, capital and revenue.give examples of terms like business transaction, liabilities, assets, expenditure and purchases.

<p>Theory Base of Accounting</p> <ul style="list-style-type: none"> • Fundamental accounting assumptions: GAAP: Concept • Business Entity, Money Measurement, Going Concern, Accounting Period, Cost Concept, Dual Aspect, Revenue Recognition, Matching, Full Disclosure, Consistency, Conservatism, Materiality and Objectivity • System of Accounting. Basis of Accounting: cash basis and accrual basis • Accounting Standards: Applicability in IndAS • Goods and Services Tax (GST): Characteristics and Objective. 	<ul style="list-style-type: none"> • explain that sales/purchases include both cash and credit sales/purchases relating to the accounting year. • differentiate among income, profits and gains. • state the meaning of fundamental accounting assumptions and their relevance in accounting. • describe the meaning of accounting assumptions and the situation in which an assumption is applied during the accounting process. • explain the meaning and objectives of accounting standards. • appreciate that various accounting standards developed nationally and globally are in practice for bringing parity in the accounting treatment of different items. • acknowledge the fact that recording of accounting transactions follows double entry system. • explain the bases of recording accounting transaction and to appreciate that accrual basis is a better basis for depicting the correct financial position of an enterprise. • Understand the need of IFRS • Explain the meaning, objective and characteristic of GST.
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Unit-2: Accounting Process

Units/Topics	Learning Outcomes
<p>Recording of Business Transactions</p> <ul style="list-style-type: none"> • Voucher and Transactions: Source documents and Vouchers, Preparation of Vouchers, Accounting Equation Approach: Meaning and Analysis, Rules of Debit and Credit. • Recording of Transactions: Books of Original 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • explain the concept of accounting equation and appreciate that every transaction affects either both the sides of the equation or a positive effect on one item and a negative effect on another item on the same side of

<p>Entry- Journal</p> <ul style="list-style-type: none"> • Special Purpose books: • Cash Book: Simple, cash book with bank column and petty cashbook • Purchases book • Sales book • Purchases return book • Sales return book <p>Note: Including trade discount, freight and cartage expenses for simple GST calculation.</p> <ul style="list-style-type: none"> • Ledger: Format, Posting from journal and subsidiary books, Balancing of accounts <p>Bank Reconciliation Statement:</p> <ul style="list-style-type: none"> • Need and preparation. <p>Depreciation, Provisions and Reserves</p> <ul style="list-style-type: none"> • Depreciation: Concept, Features, Causes, factors • Other similar terms: Depletion and Amortisation • Methods of Depreciation: <ul style="list-style-type: none"> i. Straight Line Method (SLM) ii. Written Down Value Method (WDV) <p>Note: Excluding change of method</p> <ul style="list-style-type: none"> • Difference between SLM and WDV; Advantages of SLM and WDV • Accounting treatment of depreciation <ul style="list-style-type: none"> i. Charging to asset account ii. Creating provision for depreciation/accumulated depreciation account • Provisions and Reserves: Difference • Types of Reserves: <ul style="list-style-type: none"> i. Revenue reserve ii. Capital reserve iii. General reserve iv. Specific reserve 	<p>accounting equation.</p> <ul style="list-style-type: none"> • explain the effect of a transaction (increase or decrease) on the assets, liabilities, capital, revenue and expenses. • appreciate that on the basis of source documents, accounting vouchers are prepared for recording transaction in the books of accounts. • develop the understanding of recording of transactions in journal and the skill of calculating GST. • explain the purpose of maintaining a Cash Book and develop the skill of preparing the format of different types of cash books and the method of recording cash transactions in Cash book. • describe the method of recording transactions other than cash transactions as per their nature in different subsidiary books . • appreciate that at times bank balance as indicated by cash book is different from the bank balance as shown by the pass book / bank statement and to reconcile both the balances, bank reconciliation statement is prepared. • develop understanding of preparing bank reconciliation statement. • appreciate that for ascertaining the position of individual accounts, transactions are posted from subsidiary books and journal proper into the concerned accounts in the ledger and develop the skill of ledger posting. • explain the necessity of providing depreciation and develop the skill of using different methods for computing depreciation. • understand the accounting treatment of providing depreciation directly to the concerned asset account or by creating provision for depreciation account.
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<p>v. Secret Reserve</p> <ul style="list-style-type: none"> Difference between capital and revenue reserve 	<ul style="list-style-type: none"> appreciate the need for creating reserves and also making provisions for events which may belong to the current year but may happen in next year. appreciate the difference between reserve and reserve fund.
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<u>TERM II</u>		MARKS
Theory: 40 Marks		
Part A		
<u>UNIT 2</u> <u>ACCOUNTING PROCESS:</u>		
1	ACCOUNTING FOR BILLS OF EXCHANGE	12
2	TRIAL BALANCE AND RECTIFICATION OF ERRORS	
Part B: FINANCIAL ACCOUNTING-II		
<u>UNIT 3</u> FINANCIAL STATEMENTS OF SOLE PROPRIETORSHIP FROM COMPLETE AND INCOMPLETE RECORDS		20
<u>UNIT 4</u> COMPUTERS IN ACCOUNTING		8
TOTAL		40
PROJECT (PART – 2): 10 MARKS		

<p>Accounting for Bills of Exchange</p> <ul style="list-style-type: none"> • Bill of exchange and Promissory Note: Definition, Specimen, Features, Parties. • Difference between Bill of Exchange and Promissory Note • Terms in Bill of Exchange: <ul style="list-style-type: none"> i. Term of Bill ii. Accommodation bill (concept) iii. Days of Grace iv. Date of maturity v. Discounting of bill vi. Endorsement of bill vii. Bill after due date viii. Negotiation ix. Bill sent for collection x. Dishonour of bill • Accounting Treatment <p>Note: excluding accounting treatment for accommodation bill</p> <p>Trial balance and Rectification of Errors</p> <ul style="list-style-type: none"> • Trial balance: objectives and preparation <p>(Scope: Trial balance with balance method only)</p> <ul style="list-style-type: none"> • Errors: types-errors of omission, commission, principles, and compensating; their effect on Trial Balance. • Detection and rectification of errors; preparation of suspense account. 	<ul style="list-style-type: none"> • acquire the knowledge of using bills of exchange and promissory notes for financing business transactions. • understand the meaning and distinctive features of these instruments and develop the skills of their preparation. • state the meaning of different terms used in bills of exchange and their implication in accounting. • explain the method of recording of bill transactions. • state the need and objectives of preparing trial balance and develop the skill of preparing trial balance. • appreciate that errors may be committed during the process of accounting. • understand the meaning of different types of errors and their effect on trial balance. • develop the skill of identification and location of errors and their rectification and preparation of suspense account.
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Part B: Financial Accounting - II

Unit 3: Financial Statements of Sole Proprietorship

Units/Topics	Learning Outcomes
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<p>Financial Statements Meaning, objectives and importance; Revenue and Capital Receipts; Revenue and Capital Expenditure; Deferred Revenue expenditure. Trading and Profit and Loss Account: Gross Profit, Operating profit and Net profit. Preparation. Balance Sheet: need, grouping and marshalling of assets and liabilities. Preparation. Adjustments in preparation of financial statements with respect to closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, Abnormal loss, goods taken for personal use/staff welfare, interest on capital and managers commission. Preparation of Trading and Profit and Loss account and Balance Sheet of a sole proprietorship with adjustments.</p> <p>Incomplete Records Features, reasons and limitations. Ascertainment of Profit/Loss by Statement of Affairs method.</p>	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • state the meaning of financial statements the purpose of preparing financial statements. • state the meaning of gross profit, operating profit and net profit and develop the skill of preparing trading and profit and loss account. • explain the need for preparing balance sheet. • understand the technique of grouping and marshalling of assets and liabilities. • appreciate that there may be certain items other than those shown in trial balance which may need adjustments while preparing financial statements. • develop the understanding and skill to do adjustments for items and their presentation in financial statements like depreciation, closing stock, provisions, abnormal loss etc. • develop the skill of preparation of trading and profit and loss account and balance sheet. • state the meaning of incomplete records and their uses and limitations. • develop the understanding and skill of computation of profit / loss using the statement of affairs method.
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Unit 4: Computers in Accounting

Units/Topics	Learning Outcomes
<ul style="list-style-type: none"> • Introduction to computer and accounting information system (AIS): Introduction to computers (elements, capabilities, limitations of computer system) 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • state the meaning of a computer, describe its components, capabilities and limitations. • state the meaning of accounting information system.

<p>Scope:</p> <p>(i) <i>The scope of the unit is to understand accounting as an information system for the generation of accounting information and preparation of accounting reports.</i></p> <p>(ii) <i>It is presumed that the working knowledge of any appropriate accounting software will be given to the students to help them learn basic accounting operations on computers.</i></p>	<ul style="list-style-type: none"> • appreciate the need for use of computers in accounting for preparing accounting reports. • develop the understanding of comparing the manual and computerized accounting process and appreciate the advantages and limitations of automation. • understand the different kinds of accounting software.
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Part C: Project Work

The project work would be divided into two parts i.e. Term I (10 marks) and Term II (10 marks) for the purpose of assessment and will be covered as detailed below.

Comprehensive project of any sole proprietorship business. This may state with journal entries and their ledger postings, preparation of Trial balance. Trading and Profit and Loss Account and Balance Sheet. Expenses, incomes and profit (loss), assets and liabilities are to be depicted using pie chart / bar diagram.

TERM -I

<u>PARTICULARS</u>	<u>MARKS</u>
Project (Till Ledger Posting and balancing of accounts)	10

TERM -II

<u>PARTICULARS</u>	<u>MARKS</u>
Project (Financial statements and depiction using diagrammatic / graphical tools)	10

PROJECT WORK

It is suggested to undertake this project after completing the unit on preparation of financial statements. The student(s) will be allowed to select any business of their choice or develop the transaction of imaginary business. The project is to run through the chapters and make the project an interesting process. The amounts should emerge as more realistic and closer to reality.

Specific Guidelines for Teachers

Give a list of options to the students to select a business form. You can add to the given list:

- | | | |
|---------------------|------------------|-------------------|
| 1. A beauty parlour | 10. Men's wear | 19. A coffee shop |
| 2. Men's saloon | 11. Ladies wear | 20. A music shop |
| 3. A tailoring shop | 12. Kiddies wear | 21. A juice shop |

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|-------------------------|-------------------------------|--------------------------|
| 4. A canteen | 13. A Saree shop | 22. A school canteen |
| 5. A cake shop | 14. Artificial jewellery shop | 23. An ice cream parlour |
| 6. A confectionery shop | 15. A small restaurant | 24. A sandwich shop |
| 7. A chocolate shop | 16. A sweet shop | 25. A flower shop |
| 8. A dry cleaner | 17. A grocery shop | |
| 9. A stationery shop | 18. A shoe shop | |

After selection, advise the student(s) to visit a shop in the locality (this will help them to settle on a realistic amounts different items. The student(s) would be able to see the things as they need to invest in furniture, decor, lights, machines, computers etc.

A suggested list of different item is given below.

- | | |
|--|---|
| 1. Rent | 19. Wages and Salary |
| 2. Advance rent [approximately three months] | 20. Newspaper and magazines |
| 3. Electricity deposit | 21. Petty expenses |
| 4. Electricity bill | 22. Tea expenses |
| 5. Electricity fitting | 23. Packaging expenses |
| 6. Water bill | 24. Transport |
| 7. Water connection security deposit | 25. Delivery cycle or a vehicle purchased |
| 8. Water fittings | 26. Registration |
| 9. Telephone bill | 27. Insurance |
| 10. Telephone security deposit | 28. Auditors fee |
| 11. Telephone instrument | 29. Repairs & Maintenance |
| 12. Furniture | 30. Depreciations |
| 13. Computers | 31. Air conditioners |
| 14. Internet connection | 32. Fans and lights |
| 15. Stationery | 33. Interior decorations |
| 16. Advertisements | 34. Refrigerators |
| 17. Glow sign | 35. Purchase and sales |
| 18. Rates and Taxes | |

At this stage, performas of bulk of originality and ledger may be provided to the students and they may be asked to complete the same.

In the next step the students are expected to prepare the trial balance and the financial statements.

Accountancy (Code No. 055)

(2021-22)

CLASS XII - CURRICULUM (TERM-WISE)

TERM -1 (MCQ BASED QUESTION PAPER)		
Theory:40 Marks	Duration: 90 minutes	MARKS
	Part A	
	<u>UNIT</u>	
	<u>ACCOUNTING FOR PARTNERSHIP FIRMS:</u>	18
1	FUNDAMENTALS	
2	CHANGE IN PROFIT SHARING RATIO	
3	ADMISSION OF A PARTNER	
	<u>COMPANY ACCOUNTS:</u>	12
1	ACCOUNTING FOR SHARES	
	PART B	
	<u>ANALYSIS OF FINANCIAL STATEMENTS:</u>	10
1	FINANCIAL STATEMENTS OF A COMPANY <i>(i) Statement of Profit and Loss and Balance Sheet in prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013)</i> <i>(ii) Tools of Analysis - Ratio Analysis</i>	
2	ACCOUNTING RATIOS	
	OR	
	<u>COMPUTERISED ACCOUNTING</u>	10
1	OVERVIEW OF COMPUTERISED ACCOUNTING SYSTEM	
2	ACCOUNTING APPLICATION OF ELECTRONIC SPREADSHEET	
	Total	40
	Project Work (Part -1): 10 Marks	

Part - A:

Unit : Accounting for Partnership Firms

Units/Topics	Learning Outcomes
<ul style="list-style-type: none"> • Partnership: features, Partnership Deed. • Provisions of the Indian Partnership Act 1932 in the absence of partnership deed. • Fixed v/s fluctuating capital accounts. Preparation of Profit and Loss Appropriation account- division of profit among partners, guarantee of profits. • Past adjustments (relating to interest on capital, interest on drawing, salary and profit sharing ratio). • Goodwill: nature, factors affecting and methods of valuation - average profit, superprofit and capitalization. <p><i>Note: Interest on partner's loan is to be treated as a charge against profits.</i></p> <p>Goodwill to be adjusted through partners capital/current account.</p> <p><i>Note: Raising and writing off goodwill is excluded.</i></p> <p>Accounting for Partnership firms - Reconstitution</p> <ul style="list-style-type: none"> • Change in the Profit Sharing Ratio among the existing partners - sacrificing ratio, gaining ratio, accounting for revaluation of assets and reassessment of liabilities and treatment of reserves and accumulated profits. Preparation of revaluation account and balance sheet. • Admission of a partner - effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill, treatment for revaluation of assets and reassessment of liabilities, treatment of reserves and accumulated profits. 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • 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 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. • state the meaning, nature and factors affecting goodwill • develop the understanding and skill of valuation of goodwill using different methods. • state the meaning of sacrificing ratio, gaining ratio and the 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. • explain the effect of change in profit sharing ratio on admission of a new 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, and preparation of balance sheet of the new firm.

Unit - Accounting for Companies

Units/Topics	Learning Outcomes
<p>Accounting for Share Capital</p> <ul style="list-style-type: none"> • Share and share capital: nature and types. • Accounting for share capital: issue and allotment of equity and preference shares. Public subscription of shares - over subscription and under subscription of shares; issue at par and at premium, calls in advance and arrears (excluding interest), issue of shares for consideration other than cash. • Concept of Private Placement and Employee Stock Option Plan (ESOP). • Accounting treatment of forfeiture and re-issue of shares. • Disclosure of share capital in the Balance Sheet of a company. 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • state the meaning of share and share capital and differentiate between equity shares and preference shares and different types of share capital. • understand the meaning of private placement of shares and Employee Stock Option Plan. • explain the accounting treatment of share capital transactions regarding issue of shares. • develop the understanding of accounting treatment of forfeiture and re-issue of forfeited shares. • describe the presentation of share capital in the balance sheet of the company as per schedule III part I of the Companies Act 2013.

Part – B:

Unit : Analysis of Financial Statements

Units/Topics	Learning Outcomes
<p>Financial statements of a Company: Statement of Profit and Loss and Balance Sheet in prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013)</p> <p>Note: <i>Exceptional items, extraordinary items and profit (loss) from discontinued operations are excluded.</i></p> <ul style="list-style-type: none"> • Financial Statement Analysis: Objectives, importance and limitations. • Accounting Ratios: Meaning, Objectives, classification and computation. • Liquidity Ratios: Current ratio and Quick ratio. • Solvency Ratios: Debt to Equity Ratio, Total Asset to Debt Ratio, Proprietary Ratio and interest coverage ratio. • Activity Ratios: Inventory Turnover Ratio, Trade Receivables Turnover Ratio, Trade Payables Turnover Ratio and Working Capital Turnover Ratio. 	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • 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. • state the meaning, objectives and limitations of financial statement analysis. • discuss the meaning of different tools of 'financial statements analysis'. • state the meaning, objectives and significance of different types of ratios. • develop the understanding of computation of current ratio and quick ratio. • develop the skill of computation of debt equity ratio, total asset to debt ratio, proprietary ratio and interest coverage ratio. • develop the skill of computation of inventory turnover ratio, trade receivables and trade payables ratio and working capital turnover ratio. • develop the skill of computation of gross

<ul style="list-style-type: none"> • Profitability Ratios: Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio and Return on Investment. 	profit ratio, operating ratio, operating profit ratio, net profit ratio and return on investment.
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Note: Net Profit Ratio is to be calculated on the basis of profit before and after tax.

OR

Part B: Computerised Accounting

Unit : Computerised Accounting

Overview of Computerised Accounting System

- Introduction: Application in Accounting.
- Features of Computerised Accounting System.
- Structure of CAS.
- Software Packages: Generic; Specific; Tailored.

Accounting Application of Electronic Spreadsheet.

- Concept of electronic spreadsheet.
- Features offered by electronic spreadsheet.
- Application in generating accounting information - bank reconciliation statement; asset accounting; loan repayment of loan schedule, ratio analysis
- Data representation- graphs, charts and diagrams.

TERM -II

	<u>TERM II</u>	MARKS
	<u>Theory: 40 Marks</u>	
	Part A	
	<u>UNIT</u>	
1	<u>ACCOUNTING FOR NOT-FOR PROFIT ORGANISATIONS</u>	10
	-	
	<u>ACCOUNTING FOR PARTNERSHIP FIRMS:</u>	12
1	RETIREMENT AND DEATH OF A PARTNER	
2	DISSOLUTION OF PARTNERSHIP FIRMS	
	<u>COMPANY ACCOUNTS:</u>	8
1	ACCOUNTING FOR DEBENTURES	
	Part B	
	<u>ANALYSIS OF FINANCIAL STATEMENTS:</u>	10
1	FINANCIAL STATEMENTS OF A COMPANY	

	(i) COMPARATIVE AND COMMON SIZE STATEMENTS	
2	CASH FLOW STATEMENT	
	OR	
	COMPUTERISED ACCOUNTING	10
1	USING COMPUTERISED ACCOUNTING SYSTEM	
2	DATABASE MANAGEMENT SYSTEM	
	Total	40
	PROJECT (PART – 2): 10 MARKS	

Part - A:

Unit : Accounting for Not – For Profit Organisations

Units/Topics	Learning Outcomes
<ul style="list-style-type: none"> Not-for-profit organizations: concept. Receipts and Payments Account: features and preparation. Income and Expenditure Account: features, preparation of income and expenditure account and balance sheet from the given receipts and payments account with additional information. <p>Scope:</p> <p>(i) Adjustments in a question should not exceed 3 or 4 in number and restricted to subscriptions, consumption of consumables and sale of assets/ old material.</p> <p>(ii) Entrance/admission fees and general donations are to be treated as revenue receipts.</p> <p>(iii) Trading Account of incidental activities is not to be prepared.</p>	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> state the meaning of a Not-for-profit organisation and its distinction from a profit making entity. state the meaning of receipts and payments account, and understanding its features. develop the understanding and skill of preparing receipts and payments account. state the meaning of income and expenditure account and understand its features. develop the understanding and skill of preparing income and expenditure account and balance sheet of a not-for-profit organisation with the help of given receipts and payments account and additional information.

Unit : Accounting for Partnership Firms

<p>Accounting for Partnership firms - Reconstitution and Dissolution.</p> <ul style="list-style-type: none"> Retirement and death of a partner: effect of retirement / death of a partner on change in profit sharing ratio, treatment of goodwill, treatment for revaluation of assets and reassessment of liabilities, adjustment of accumulated profits and reserves and preparation of balance sheet. Calculation of deceased partner's share of profit till the date of death. 	<ul style="list-style-type: none"> explain the effect of retirement / death of a partner on change in profit sharing ratio. develop the understanding of accounting treatment of goodwill, revaluation of assets and re-assessment of liabilities and adjustment of accumulated profits and reserves on retirement / death of a partner. develop the skill of calculation of deceased
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<p>Dissolution of a partnership firm: meaning of dissolution of partnership and partnership firm, types of dissolution of a firm. Settlement of accounts - preparation of realization account, and other related accounts: capital accounts of partners and cash/bank a/c (excluding piecemeal distribution, sale to a company and insolvency of partner(s)).</p> <p>Note:</p> <p>(i) If realized value of an asset is not given, it is to be presumed that it has not realised any amount.</p> <p>(ii) If a partner has borne and/ or paid the realisation expenses, it should be stated.</p>	<p>partner's share till the time of his death.</p> <ul style="list-style-type: none"> • discuss the preparation of the capital accounts of the remaining partners and the balance sheet of the firm after retirement / death of a partner. • understand the situations under which a partnership firm can be dissolved. • develop the understanding of preparation of realisation account and other related accounts.
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Unit - Accounting for Companies

Units/Topics	Learning Outcomes
<p>Accounting for Debentures</p> <ul style="list-style-type: none"> • Debentures: Issue of debentures at par, at a premium and at a discount. Issue of debentures for consideration other than cash; Issue of debentures with terms of redemption; debentures as collateral security-concept, interest on debentures. Writing off discount / loss on issue of debentures. <p>Note: Discount or loss on issue of debentures to be written off in the year debentures are allotted from Security Premium Reserve/ Capital Reserve/ Statement of Profit and Loss as Financial Cost (AS16) in that order.</p> <p><i>Note: Related sections of the Companies Act, 2013 will apply.</i></p> <p><i>Concept of Tax Deducted at Source (TDS) is excluded.</i></p>	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> • explain the accounting treatment of different categories of transactions related to issue of debentures. • develop the understanding and skill of writing off discount / loss on issue of debentures. • understand the concept of collateral security and its presentation in balance sheet. • develop the skill of calculating interest on debentures and its accounting treatment. • state the meaning of redemption of debentures.

Part – B:

Unit : Analysis of Financial Statements

Units/Topics	Learning Outcomes
Financial statements of a Company: <ul style="list-style-type: none">• Tools for Financial Statement Analysis: Comparative statements, common size statements.	After going through this Unit, the students will be able to: <ul style="list-style-type: none">• develop the understanding and skill of preparation of comparative and common size financial statements.

Unit : Cash Flow Statement

Units/Topics	Learning Outcomes
<ul style="list-style-type: none">• Meaning, objectives and preparation (as per AS 3 (Revised) (Indirect Method only) <p>Note:</p> <p><i>(i) Adjustments relating to depreciation and amortization, profit or loss on sale of assets including investments, dividend (both final and interim) and tax.</i></p> <p><i>(ii) Bank overdraft and cash credit to be treated as short term borrowings.</i></p> <p><i>(iii) Current Investments to be taken as Marketable securities unless otherwise specified.</i></p>	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none">• state the meaning and objectives of cash flow statement.• develop the understanding of preparation of Cash Flow Statement using indirect method as per AS 3 with given adjustments.

Note: Previous years' Proposed Dividend to be given effect, as prescribed in AS-4, Events occurring after the Balance Sheet date. Current years' Proposed Dividend will be accounted for in the next year after it is declared by the shareholders.

OR

Part B: Computerised Accounting

Unit : Computerised Accounting

Using Computerized Accounting System.

- Steps in installation of CAS, codification and Hierarchy of account heads, creation of accounts.
- Data: Entry, validation and verification.
- Adjusting entries, preparation of balance sheet, profit and loss account with closing entries and opening entries.
- Need and security features of the system.

Database Management System (DBMS)

- Concept and Features of DBMS.
- DBMS in Business Application.
- Generating Accounting Information – Payroll.

Part C: Practical Work

Students would prepare only ONE project in the entire academic session, which is divided into two terms i.e. Term – I and Term – II

Detailed guidelines for project work are as follows-

Students need to create **one specific project** only in which they would be required to cover the company profile, assessment of financial

statements, and specific report analysis. The main objective of preparing the project report is for the following reason:

1. Students are able to state the meaning, objectives, and limitations of financial statement analysis.
2. Study the proper use of different tools of 'financial statements analysis' like comparative analysis, Ratios and Cash flow statement.
3. Capable to create Comparative Statements and Common Size Statement.
4. Understand the Meaning, objective, advantage, and limitation of Accounting Ratios.

TERM -I

<u>PARTICULARS</u>	<u>MAXIMUM MARKS</u>
Written Test (based on Project – Accounting Ratios)	6
Practical file	2
Viva (Ratio Analysis)	2

TERM -II

<u>PARTICULARS</u>	<u>MAXIMUM MARKS</u>
Written Test (based on Comparative Statements and Common Size Statement and Cash Flow statement)	6
Practical file	2
Viva (Comparative Statements and Common Size Statement and Cash flow Statement)	2

Prescribed Books:

Financial Accounting -I	Class XI	NCERT Publication
Accountancy -II	Class XI	NCERT Publication
Accountancy -I	Class XII	NCERT Publication
Accountancy -II	Class XII	NCERT Publication
Accountancy – Computerised Accounting System	Class XII	NCERT Publication

BUSINESS STUDIES (Code No. 054)

Rationale

The courses in Business Studies are introduced at + 2 stage of Senior Secondary Education as formal commerce education is provided after the first ten years of schooling. Therefore, it becomes necessary that instructions in these subjects are given in such a manner that students have a good understanding of the principles and practices bearing in business (trade and industry) as well as their relationship with the society.

Business is a dynamic process that brings together technology, natural resources and human initiative in a constantly changing global environment. To understand the framework in which a business operates, a detailed study of the organisation and management of business processes and its interaction with the environment is required. Globalisation has changed the way organizations transact their business.

Information Technology is becoming a part of business operations in more and more organizations. Computerized systems are fast replacing other systems. E-business and other related concepts are picking up fast which need to be emphasized in the curriculum.

The course in Business Studies prepares students to analyze, manage, evaluate and respond to changes which affect business. It provides a way of looking at and interacting with the business environment. It recognizes the fact that business influences and is influenced by social, political, legal and economic forces.

It allows students to appreciate that business is an integral component of society and develops an understanding of many social and ethical issues.

Therefore, to acquire basic knowledge of the business world, a course in Business Studies would be useful. It also informs students of a range of study and work options and bridges the gap between school and work.

Objectives:

- To inculcate business attitude and develop skills among students to pursue higher education, world of work including self employment.
- To develop students with an understanding of the processes of business and its environment;
- To acquaint students with the dynamic nature and interdependent aspects of business;

- To develop an interest in the theory and practice of business, trade and industry;
- To familiarize students with theoretical foundations of the process of organizing and managing the operations of a business firm;
- To help students appreciate the economic and social significance of business activity and the social cost and benefits arising there from;
- To acquaint students with the practice of managing the operations and resources of business;
- To enable students to act more effectively and responsibly as consumers, employers, employees and citizens;

**BUSINESS STUDIES (Code No. 054)
CLASS–XI (2021-22) TERM WISE CURRICULUM**

TERM 1- MCQ BASED QUESTION PAPER			
THEORY - 40 MARKS		DURATION:90 MINUTES	
Units		Periods	Marks
Part A	Foundations of Business		
1	Evolution and Fundamentals of Business	18	16
2	Forms of Business Organisations	20	
3	Public, Private and Global Enterprises	10	14
4	Business Services	14	
5	Emerging Modes of Business	05	10
6	Social Responsibility of Business and Business Ethics	08	
	Total	75	40
	PROJECT WORK (Part-1)		10

Students would prepare only ONE project in the entire academic session, which is divided into 2 terms i.e. Term I and Term II.

TERM I

Part A: Foundation of Business

Concept includes meaning and features

Unit 1: Evolution and Fundamentals of Business

Content	After going through this unit, the student/ learner would be able to:
History of Trade and Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities: Merchant Corporations, Major Trade Centers, Major Imports and Exports, Position of Indian Sub-Continent in the World Economy.	<ul style="list-style-type: none"> • To acquaint the History of Trade and Commerce in India
Business – meaning and characteristics	<ul style="list-style-type: none"> • Understand the meaning of business with special reference to economic and non-economic activities. • Discuss the characteristics of business.

Business, profession and employment-Concept	<ul style="list-style-type: none"> ● Understand the concept of business, profession and employment. ● Differentiate between business, profession and employment.
Objectives of business	<ul style="list-style-type: none"> ● Appreciate the economic and social objectives of business. ● Examine the role of profit in business.
Classification of business activities - Industry and Commerce	<ul style="list-style-type: none"> ● Understand the broad categories of business activities- industry and commerce.
Industry-types: primary, secondary, tertiary Meaning and subgroups	<ul style="list-style-type: none"> ● Describe the various types of industries.
Commerce-trade: (types-internal, external; wholesale and retail) and auxiliaries to trade; (banking, insurance, transportation, warehousing, communication, and advertising) – meaning	<ul style="list-style-type: none"> ● Discuss the meaning of commerce, trade and auxiliaries to trade. ● Discuss the meaning of different types of trade and auxiliaries to trade. ● Examine the role of commerce- trade and auxiliaries to trade.
Business risk-Concept	<ul style="list-style-type: none"> ● Understand the concept of risk as a special characteristic of business. ● Examine the nature and causes of business risks.

Unit 2: Forms of Business organizations

Sole Proprietorship-Concept, merits and limitations.	<ul style="list-style-type: none"> ● List the different forms of business organizations and understand their meaning. ● Identify and explain the concept, merits and limitations of Sole Proprietorship.
Partnership-Concept, types, merits and limitation of partnership, registration of a partnership firm, partnership deed. Types of partners	<ul style="list-style-type: none"> ● Identify and explain the concept, merits and limitations of a Partnership firm. ● Understand the types of partnership on the basis of duration and on the basis of liability. ● State the need for registration of a partnership firm. ● Discuss types of partners –active, sleeping, secret, nominal and partner by estoppel.
Hindu Undivided Family Business: Concept	<ul style="list-style-type: none"> ● Understand the concept of Hindu Undivided Family Business.
Cooperative Societies-Concept, types, merits, and limitations.	<ul style="list-style-type: none"> ● Identify and explain the concept, merits and limitations of Cooperative Societies. ● Understand the concept of consumers, producers, marketing, farmers, credit and housing co-operatives.
Company - Concept, merits and limitations; Types: Private, Public and One Person Company – Concept	<ul style="list-style-type: none"> ● Identify and explain the concept, merits and limitations. ● Understand the concept of private and public companies and one person company. ● Understand the meaning of one person company. ● Distinguish between a private company and a public company.

Formation of company - stages, important documents to be used in the formation of a company	<ul style="list-style-type: none"> ● Highlight the stages in the formation of a company. ● Discuss the important documents used in the various stages in the formation of a company.
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Unit 3: Public, Private and Global Enterprises

Public sector and private sector enterprises – Concept	<ul style="list-style-type: none"> ● Develop an understanding of Public sector and private sector enterprises
Forms of public sector enterprises: Departmental Undertakings, Statutory Corporations and Government Company.	<ul style="list-style-type: none"> ● Identify and explain the features, merits and limitations of different forms of public sector enterprises

Unit 4: Business Services

Business services – meaning and types. Banking: Types of bank accounts - savings, current, recurring, fixed deposit and multiple option deposit account	<ul style="list-style-type: none"> ● Understand the meaning and types of business services. ● Develop an understanding of different types of bank accounts.
Banking services with particular reference to Bank Draft, Bank Overdraft, Cash credit. E-Banking meaning, Types of digital payments	<ul style="list-style-type: none"> ● Develop an understanding of the different services provided by banks
Insurance – Principles. Types – life, health, fire and marine insurance– concept	<ul style="list-style-type: none"> ● Understand Utmost Good Faith, Insurable Interest, Indemnity, Contribution, Doctrine of Subrogation and Causa Proxima as principles of insurance ● Discuss different types of insurance-life, health, fire, marine insurance

Unit 5: Emerging Modes of Business

E - business: concept, scope and benefits	<ul style="list-style-type: none"> ● Give the meaning of e-business. ● Discuss the scope of e-business. ● Appreciate the benefits of e-business ● Distinguish e-business from traditional business.
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Unit 6: Social Responsibility of Business and Business Ethics

Concept of social responsibility	<ul style="list-style-type: none"> ● State the concept of social responsibility.
Case for social responsibility	<ul style="list-style-type: none"> ● Examine the case for social responsibility.
Responsibility towards owners, investors, consumers, employees, government and community.	<ul style="list-style-type: none"> ● Identify social responsibilities towards different interest groups.
Role of business in environment protection	<ul style="list-style-type: none"> ● Appreciate the role of business in environment protection.

PROJECT WORK IN BUSINESS STUDIES (ONLY ONE PROJECT): GUIDELINES AS GIVEN IN CLASS XII CURRICULUM

CLASS–XI Code -054 (2021-22) TERM WISE CURRICULUM

TERM-2 SUBJECTIVE QUESTION PAPER			
Theory - 40 Marks		DURATION:- 2 Hrs	
Part B	Finance and Trade	PERIODS	MARKS
7	Sources of Business Finance	28	20
8	Small Business and Entrepreneurship Development	16	
9	Internal Trade	22	20
10	International Business	04	
TOTAL		70	40
PROJECT WORK (PART - 2)			10

TERM II

Part B: Finance and Trade

Unit 7: Sources of Business Finance

Business finance: Concept and Importance	<ul style="list-style-type: none"> State the meaning, nature and importance of business finance.
Owners' funds- equity shares, preferences share, retained earnings, Global Depository receipt (GDR), American Depository Receipt (ADR) and International Depository Receipt (IDR) – concept	<ul style="list-style-type: none"> Classify the various sources of funds into owners' funds. State the meaning of owners' funds. Understand the meaning of Global Depository receipts, American Depository Receipts and International Depository Receipts.
Borrowed funds: debentures and bonds, loan from financial institution and commercial banks, public deposits, trade credit	<ul style="list-style-type: none"> State the meaning of borrowed funds. Discuss the concept of debentures, bonds, loans from financial institutions and commercial banks ,public deposits&Trade credit Distinguish between owners' funds and borrowed funds.

Unit 8: Small Business and Entrepreneurship Development

Entrepreneurship Development (ED): Concept and Need. Process of Entrepreneurship Development: Start-up India Scheme, ways to fund startup. Intellectual Property Rights and Entrepreneurship	<ul style="list-style-type: none"> Understand the concept and need of Entrepreneurship Development (ED), Intellectual Property Rights Understand the process of Entrepreneurship Development
Small scale enterprise – Definition	<ul style="list-style-type: none"> Understand the definition of small enterprises
Role of small business in India with special reference to rural areas	<ul style="list-style-type: none"> Discuss the role of small scale business in India with special reference to rural areas
Government schemes and agencies for small scale	<ul style="list-style-type: none"> Appreciate various schemes of NSIC and

industries: National Small Industries Corporation (NSIC) and District Industrial Centre (DIC) with special reference to rural, backward areas	DIC with special reference to rural, backward area.
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Unit 9: Internal Trade

Internal trade - meaning and types of services rendered by a wholesaler and a retailer	<ul style="list-style-type: none"> ● State the meaning and types of internal trade. ● Appreciate the services of wholesalers and retailers.
Large scale retailers-Departmental stores, chain stores – concept	<ul style="list-style-type: none"> ● Highlight the distinctive features of departmental stores, chain stores

Unit 10: International Trade

International trade: concept and benefits	<ul style="list-style-type: none"> ● Understand the concept of international trade. ● Describe the benefit of international trade to the nation and business firms.
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PROJECT WORK IN BUSINESS STUDIES (ONLY ONE PROJECT): GUIDELINES AS GIVEN IN CLASS XII CURRICULUM

BUSINESS STUDIES (CODE -054)

CLASS–XII (2021-22) TERM WISE CURRICULUM

Units	TERM 1-MCQ BASED QUESTION PAPER THEORY - 40 MARKS DURATION:90 MINUTES	Periods	Marks
Part A	Principles and Functions of Management		
1.	Nature and Significance of Management	12	16
2	Principles of Management	11	
3	Business Environment	08	
4	Planning	08	14
5	Organising	10	
	Total	49	30
Part B	Business Finance and Marketing		
11	Marketing Management	24	10
	Total	24	10
	Total	73	40
	PROJECT WORK (PART 1)		10

Students would prepare only ONE project in the entire academic session, which is divided into 2 terms i.e. Term I and Term II.

Term 1:

Part A: Principles and Functions of Management

Unit 1: Nature and Significance of Management

Concept	After going through this unit, the student/ learner would be able to:
Management - concept, objectives, and importance	<ul style="list-style-type: none"> ● Understand the concept of management. ● Explain the meaning of 'Effectiveness and Efficiency. ● Discuss the objectives of management. ● Describe the importance of management.
Management as Science, Art and Profession	<ul style="list-style-type: none"> ● Examine the nature of management as a science, art and profession.
Levels of Management	<ul style="list-style-type: none"> ● Understand the role of top, middle and lower levels of management
Management functions-planning, organizing, staffing, directing and controlling	<ul style="list-style-type: none"> ● Explain the functions of management
Coordination- concept and importance	<ul style="list-style-type: none"> ● Discuss the concept and characteristics of coordination. ● Explain the importance of coordination.

Unit 2: Principles of Management

Principles of Management- concept and significance	<ul style="list-style-type: none"> ● Understand the concept of principles of management. ● Explain the significance of management
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	principles.
Fayol's principles of management	<ul style="list-style-type: none"> Discuss the principles of management developed by Fayol.
Taylor's Scientific management- principles and techniques	<ul style="list-style-type: none"> Explain the principles and techniques of 'Scientific Management'.

Unit 3: Business Environment

Business Environment- concept and importance	<ul style="list-style-type: none"> Understand the concept of 'Business Environment'. Describe the importance of business environment
Dimensions of Business Environment- Economic, Social, Technological, Political and Legal	<ul style="list-style-type: none"> Describe the various dimensions of 'Business Environment'.

Unit 4: Planning

Planning: Concept, importance and limitation	<ul style="list-style-type: none"> Understand the concept of planning. Describe the importance of planning. Understand the limitations of planning.
Planning process	<ul style="list-style-type: none"> Describe the steps in the process of planning.

Unit 5: Organising

Organising: Concept and importance	<ul style="list-style-type: none"> Understand the concept of organizing as a structure and as a process. Explain the importance of organising.
Organising Process	<ul style="list-style-type: none"> Describe the steps in the process of organizing
Structure of organisation- functional and divisional concept	<ul style="list-style-type: none"> Describe functional and divisional structures of organisation.
Delegation: concept, elements and importance	<ul style="list-style-type: none"> Understand the concept of delegation. Describe the elements of delegation. Appreciate the importance of Delegation.
Decentralization: concept and importance	<ul style="list-style-type: none"> Understand the concept of decentralisation. Explain the importance of decentralisation. Differentiate between delegation and decentralisation.

Part B: Business Finance and Marketing

Unit 11: Marketing

Marketing – Concept, functions and philosophies	<ul style="list-style-type: none"> Understand the concept of marketing. Discuss the functions of marketing. Explain the marketing philosophies.
Marketing Mix – Concept and elements	<ul style="list-style-type: none"> Understand the concept of marketing mix. Describe the elements of the

	marketing mix.
Product - branding, labelling and packaging – Concept	<ul style="list-style-type: none"> • Understand the concept of product as an element of marketing mix. • Understand the concepts of branding, labelling and packaging.
Price - Concept, Factors determining price	<ul style="list-style-type: none"> • Understand the concept of price as an element of marketing mix. • Describe the factors determining price of a product.
Physical Distribution – concept	<ul style="list-style-type: none"> • Understand the concept of physical distribution.
Promotion – Concept and elements; Advertising, Personal Selling, Sales Promotion and Public Relations	<ul style="list-style-type: none"> • Understand the concept of promotion as an element of marketing mix. • Describe the elements of the promotion mix. • Understand the concept of advertising and personal selling • Understand the concept of sales promotion. • Discuss the concept of public relations.

PROJECT WORK IN BUSINESS STUDIES (ONLY ONE PROJECT): GUIDELINES AS GIVEN IN CLASS XII CURRICULUM

BUSINESS STUDIES-(CODE-054)
CLASS–XII (2021-22)-TERM WISE CURRICULUM

Units	TERM-2 SUBJECTIVE QUESTION PAPER Theory- 40 Marks DURATION:-2 Hrs.	Periods	Marks
Part A	Principles and Functions of Management		
6	Staffing	13	20
7	Directing	09	
8	Controlling	07	
	Total	29	20
Part B	Business Finance and Marketing		
9	Financial Management	20	15
10	Financial Markets	18	
12	Consumer Protection	05	5
	Total	43	20
	Total	72	40
	PROJECT WORK (PART – 2)		10

Term 2: Principles and Functions of Management

Unit 6: Staffing

Staffing: Concept and importance	<ul style="list-style-type: none"> Understand the concept of staffing. Explain the importance of staffing
Staffing process	<ul style="list-style-type: none"> Describe the steps in the process of staffing
Recruitment process	<ul style="list-style-type: none"> Understand the meaning and steps in the process of recruitment. Discuss the sources of recruitment.
Selection – process	<ul style="list-style-type: none"> Understand the meaning of selection. Describe the steps involved in the process of selection.
Training and Development - Concept and importance, Methods of training - on the job and off the job - vestibule training, apprenticeship training and internship training	<ul style="list-style-type: none"> Understand the concept of training and development. Appreciate the importance of training to the organisation and to the employees. Discuss on the job and off the job methods of training. Discuss the meaning of vestibule training, apprenticeship training and internship training. Differentiate between training and development.

Unit 7: Directing

Directing: Concept and importance	<ul style="list-style-type: none">• Describe the concept of directing.• Discuss the importance of directing
Elements of Directing	<ul style="list-style-type: none">• Describe the various elements of directing
Motivation - concept, Maslow's hierarchy of needs, Financial and non-financial incentives	<ul style="list-style-type: none">• Understand the concept of motivation.• Develop an understanding of Maslow's Hierarchy of needs.• Discuss the various financial and non-financial incentives.
Leadership - concept, styles - authoritative, democratic and laissez faire	<ul style="list-style-type: none">• Understand the concept of leadership.• Understand the various styles of leadership.
Communication - concept, formal and informal communication;	<ul style="list-style-type: none">• Understand the concept of communication• Discuss the concept of formal and informal communication.

Unit 8: Controlling

Controlling - Concept and importance	<ul style="list-style-type: none">• Understand the concept of controlling.• Explain the importance of controlling.
Steps in process of controlling	<ul style="list-style-type: none">• Discuss the steps in the process of controlling.

Part B: Business Finance and Marketing

Unit 9: Financial Management

Financial Management: Concept, role and objectives	<ul style="list-style-type: none">• Understand the concept of financial management.• Explain the role of financial management in an organisation.• Discuss the objectives of financial management
Financial decisions: investment, financing and dividend- Meaning and factors affecting	<ul style="list-style-type: none">• Discuss the three financial decisions and the factors affecting them.
Financial Planning - concept and importance	<ul style="list-style-type: none">• Describe the concept of financial planning.• Explain the importance of financial planning.
Capital Structure – concept and factors affecting capital structure	<ul style="list-style-type: none">• Understand the concept of capital structure.• Describe the factors determining the choice of an appropriate capital structure of a company.
Fixed and Working Capital - Concept and factors affecting their requirements	<ul style="list-style-type: none">• Understand the concept of fixed and working capital.• Describe the factors determining the requirements of fixed and working capital.

Unit 10: Financial Markets

Financial Markets: Concept, Functions and types	<ul style="list-style-type: none"> • Understand the concept of the financial market. • Explain the functions of the financial market. • Understand capital market and money market as types of financial markets.
Money market and its instruments	<ul style="list-style-type: none"> • Understand the concept of the money market. • Describe the various money market instruments.
Capital market: Concept, types (primary and secondary), methods of floatation in the primary market	<ul style="list-style-type: none"> • Discuss the concept of capital market. • Explain primary and secondary markets as types of capital market. • Differentiate between capital market and money market. • Discuss the methods of floating new issues in the primary market. • Distinguish between primary and secondary markets.
Stock Exchange – Meaning, Functions and trading procedure	<ul style="list-style-type: none"> • Give the meaning of a stock exchange. • Explain the functions of a stock exchange. • Discuss the trading procedure in a stock exchange. • Give the meaning of depository services and demat account as used in the trading procedure of securities.
Securities and Exchange Board of India (SEBI) - objectives and functions	<ul style="list-style-type: none"> • State the objectives of SEBI. • Explain the functions of SEBI.

Unit 12: Consumer Protection

Consumer Protection : Concept	<ul style="list-style-type: none"> • Understand the concept of consumer protection.
<p>The Consumer Protection Act, 2019: Source: http://egazette.nic.in/WriteReadData/2019/210422.pdf Meaning of consumer Rights and responsibilities of consumers Who can file a complaint? Redressal machinery Remedies available</p>	<p>Understand the concept of a consumer according to the Consumer Protection Act, 2019.</p> <ul style="list-style-type: none"> • Explain the consumer rights • Understand the responsibilities of consumers • Understand who can file a complaint and against whom? • Discuss the legal redressal machinery under Consumer Protection Act, 2019. • Examine the remedies available to the consumer under Consumer Protection Act, 2019

PROJECT WORK IN BUSINESS STUDIES (ONLY ONE PROJECT): GUIDELINES AS GIVEN IN CLASS XII CURRICULUM

GUIDELINES FOR PROJECT WORK IN BUSINESS STUDIES IN CLASSES XI & XII

MARKS: 20 Marks (10 + 10 MARKS FOR TERM 1 AND TERM 2)

Introduction

The course in Business Studies is introduced at Senior School level to provide students with a sound understanding of the principles and practices bearing in business (trade and industry) as well as their relationship with the society. Business is a dynamic process that brings together technology, natural resources and human initiative in a constantly changing global environment. With the purpose to help them understand the framework within which a business operates, and its interaction with the social, economic, technological and legal environment, the CBSE has introduced Project Work in the Business Studies Syllabus for Classes XI and XII. The projects have been designed to allow students to appreciate that business is an integral component of society and help them develop an understanding of the social and ethical issues concerning them.

The project work also aims to empower the teacher to relate all the concepts with what is happening around the world and the student's surroundings, making them appear more clear and contextual. This will enable the student to enjoy studies and use his free time effectively in observing what's happening around.

By means of Project Work the students are exposed to life beyond textbooks giving them opportunities to refer materials, gather information, analyze it further to obtain relevant information and decide what matter to keep.

One Project to be done throughout the session, as per the existing scheme.

1. The objectives of the project work:

Objectives of project work are to enable learners to:

- probe deeper into personal enquiry ,initiate action and reflect on knowledge and skills, views etc. acquired during the course of class XI-XII .
- analyse and evaluate real world scenarios using theoretical constructs and arguments
- demonstrate the application of critical and creative thinking skills and abilities to produce an independent and extended piece of work
- follow up aspects in which learners have interest
- develop the communication skills to argue logically

2. Role of the teacher:

The teacher plays a critical role in developing the thinking skills of the learners. A teacher should:

- help each learner select the topic after detailed discussions and deliberations of the topic;
- play the role of a facilitator to support and monitor the project work of the learner through periodic discussions;
- guide the research work in terms of sources for the relevant data;

- ensure that students must understand the relevance and usage of primary evidence and other sources in their projects and duly acknowledge the same;
- ensure that the students are able to derive a conclusion from the content; cite the limitations faced during the research and give appropriate references used in doing the research work.
- educate learners about plagiarism and the importance of quoting the source of the information to ensure authenticity of research work.
- prepare the learner for the presentation of the project work.
- arrange a presentation of the project file.

3. Steps involved in the conduct of the project:

Students may work upon the following lines as a suggested flow chart:

Choose a title/topic

Collection of the research material/data

Organization of material/data

Present material/data

Analysing the material/data for conclusion

Draw the relevant conclusion

Presentation of the Project Work

- The project work can be in the form of PowerPoint Presentation/Exhibition/Skit /albums/files/song and dance or culture show /story telling/debate/panel discussion, paper presentation and so on. Any of these activities which are suitable to visually impaired/differently-abled candidates can be performed as per the choice of the student.

4. Expected Checklist for the Project Work:

- Introduction of topic/title
- Identifying the causes,events, consequences and/or remedies
- Various stakeholders and effect on each of them
- Advantages and disadvantages of situations or issues identified
- Short-term and long-term implications of strategies suggested in the course of research
- Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
- Presentation and writing that is succinct and coherent in project file
- Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

5. Term-Wise Assessment of Project Work:

- Project Work has broadly the following phases: Synopsis/ Initiation, Data Collection, Data Analysis and Interpretation, Conclusion.
- The aspects of the project work to be covered by students can be assessed during the two terms.

TERM-I PROJECT WORK (Part 1): 10 Marks

The teacher will assess the progress of the project work in the term I in the following manner:

Month	Periodic Work	Assessment Rubrics	Marks
1-3 July-September	Instructions about Project Guidelines, Background reading Discussions on Theme and Selection of the Final Topic, Initiation/ Synopsis	Introduction, Statement of Purpose/Need and Objective of the Study, Hypothesis/Research Question, Review of Literature, Presentation of Evidence, Key Words, Methodology, Questionnaire, Data Collection.	5
4-5 October- November	Planning and organisation: forming an action plan, feasibility or baseline study, Updating/modifying the action plan, Data Collection	Significance and relevance of the topic; challenges encountered while conducting the research.	5
October- November	Midterm Assessment by internal examiner		10

TERM- II - PROJECT WORK (Part 2): 10 Marks

The teacher will assess the progress of the project work in the term II in the following manner:

Month	Periodic Work	Assessment Rubrics	Marks
6-7 December- January	Content/data analysis and interpretation. Conclusion, Limitations, Suggestions, Bibliography, Annexures and Overall Presentation of the project.	Content analysis and its relevance in the current scenario. Conclusion, Limitations, Bibliography, Annexures and Overall Presentation.	5
8 January/ February	Final Assessment and VIVA by both Internal and External Examiners	External/ Internal Viva based on the project	5
		TOTAL	10

6. Viva-Voce

- At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner.
- The questions should be asked from the Research Work/ Project File of the learner.
- The Internal Examiner should ensure that the study submitted by the learner is his/her own original work.
- In case of any doubt, authenticity should be checked and verified.

CLASS XI

The teacher should help students to identify any one project from the given topics.

The project may be done in a group or individually.

20 marks assigned for Project Work will be divided into two terms for 10 marks each.

I. Project One: Field Visit

The objective of introducing this project among the students is to give a first hand experience to them regarding the different types of business units operating in their surroundings, to observe their features and activities and relate them to the theoretical knowledge given in their textbooks. The students should select a place of field visit from the following: – (Add more as per local area availability.)

1. Visit to a Handicraft unit.
2. Visit to an Industry.
3. Visit to a Wholesale market (vegetables, fruits, flowers, grains, garments, etc.)
4. Visit to a Departmental store.
5. Visit to a Mall.

The following points should be kept in mind while preparing this visit.

1. Select a suitable day free from rush/crowd with lean business hours.
2. The teacher must visit the place first and check out on logistics. It's better to seek permission from the concerned business- incharge.
3. Visit to be discussed with the students in advance. They should be encouraged to prepare a worksheet containing points of observation and reporting.
4. Students may carry their cameras (at their own risk) with prior permission for collecting evidence of their observations.

1. Visit to a Handicraft Unit

The purpose of visiting a Handicraft unit is to understand nature and scope of its business, stakeholders involved and other aspects as outlined below

- a) The raw material and the processes used in the business: People /parties/firms from which they obtain their raw material.
- b) The market, the buyers, the middlemen, and the areas covered. c) The countries to which exports are made.
- d) Mode of payment to workers, suppliers etc.

- e) Working conditions.
- f) Modernization of the process over a period of time.
- g) Facilities, security and training for the staff and workers.
- h) Subsidies available/ availed.
- i) Any other aspect that the teachers deem fit.

2. Visit to an Industry.

The students are required to observe the following:

- a) Nature of the business organisation.
- b) Determinants for location of business unit.
- c) Form of business enterprise: Sole Proprietorship, Partnership, Undivided Hindu Family, Joint Stock Company (a Multinational Company).
- d) Different stages of production/process
- e) Auxiliaries involved in the process.
- f) Workers employed, method of wage payment, training programmes and facilities available.
- g) Social responsibilities discharged towards workers, investors, society, environment and government.
- h) Levels of management.
- i) Code of conduct for employers and employees.
- j) Capital structure employed- borrowed v/s owned.
- k) Quality control, recycling of defective goods.
- l) Subsidies available/availed.
- m) Safety Measures employed.
- n) Working conditions for labour in observation of Labour Laws.
- o) Storage of raw material and finished goods.
- p) Transport management for employees, raw material and finished goods.
- q) Functioning of various departments and coordination among them (Production, Human Resource, Finance and Marketing)
- r) Waste Management.
- s) Any other observation.

3. Visit to a wholesale market: vegetables/fruits/flowers/grains/garments etc.

The students are required to observe the following:

- a) Sources of merchandise.
- b) Local market practices.
- c) Any linked up businesses like transporters, packagers, money lenders, agents, etc.
- d) Nature of the goods dealt in.
- e) Types of buyers and sellers.
- f) Mode of the goods dispersed, minimum quantity sold, types of packaging employed.
- g) Factors determining the price fluctuations.
- h) Seasonal factors (if any) affecting the business.
- i) Weekly/ monthly non-working days.
- j) Strikes, if any- causes thereof.
- k) Mode of payments.
- l) Wastage and disposal of dead stock.
- m) Nature of price fluctuations, reason thereof.
- n) Warehousing facilities available\availed.
- o) Any other aspect.

4. Visit to a Departmental store

The students are required to observe the following:

- a) Different departments and their layout.
- b) Nature of products offered for sale.
- c) Display of fresh arrivals.
- d) Promotional campaigns.
- e) Spaces and advertisements.
- f) Assistance by Sales Personnel.
- g) Billing counter at store – Cash, Credit Card/ Debit Card, swipe facility. Added attractions and facilities at the counter.
- h) Additional facilities offered to customers
- i) Any other relevant aspect.

5. Visit to a Mall.

The students are required to observe the following:

- a) Number of floors, shops occupied and unoccupied.
- b) Nature of shops, their ownership status
- c) Nature of goods dealt in: local brands, international brands,
- d) Service business shops- Spas, gym, saloons etc.
- e) Rented spaces, owned spaces,
- f) Different types of promotional schemes.
- g) Most visited shops.
- h) Special attractions of the Mall- Food court, Gaming zone or Cinema etc.
- i) Innovative facilities.
- j) Parking facilities. Teachers may add more to the list.

II. Project Two: Case Study on a Product

- a) Take a product having seasonal growth and regular demand with which students can relate. For example,
 - Apples from Himachal Pradesh, Kashmir.
 - Oranges from Nagpur,
 - Mangoes from Maharashtra/U.P./Bihar/Andhra Pradesh etc.
 - Strawberries from Panchgani,
 - Aloe vera from Rajasthan,
 - Walnuts/almonds from Kashmir,
 - Jackfruit from South,
 - Guavas from Allahabad,
 - Pineapples from North East India,
 - Tea from Assam,
 - Orchids from Sikkim and Meghalaya,
 - Pottery of Manipur,
 - Fishes from coastal areas.

Students may develop a Case Study on the following lines:

- (i) Research for change in price of the product. For example, apples in Himachal Pradesh during plucking and non plucking season.
- (ii) Effect on prices in the absence of an effective transport system.
- (iii) Effect on prices in the absence of suitable warehouse facilities.
- (iv) Duties performed by the warehouses.

- (v) Demand and supply situation of the product during harvesting season, prices near the place of origin and away.

Students may be motivated to find out the importance of producing and selling these products and their processed items along with the roles of Transport, Warehousing, Advertising, Banking, Insurance, Packaging, Wholesale selling, Retailing, Co-operative farming, Co-operative marketing etc.

The teacher may develop the points for other projects on similar lines for students to work on.

The teacher may assign this project as 'group' project and may give different products to different groups. It could conclude in the form of an exhibition.

III. Project Three: Aids to Trade

Taking any one AID TO TRADE, for example Insurance and gathering information on following aspects

1. History of Insurance Lloyd's contribution.
 2. Development of regulatory Mechanism.
 3. Insurance Companies in India
 4. Principles of Insurance.
 5. Types of Insurance. Importance of insurance to the businessmen.
 6. Benefits of crop, orchards, animal and poultry insurance to the farmers.
 7. Terminologies used (premium, face value, market value, maturity value, surrender value) and their meanings.
 8. Anecdotes and interesting cases of insurance. Reference of films depicting people committing fraudulent acts with insurance companies.
 9. Careers in Insurance.
- Teachers develop such aspects for other aids to trade.

IV. Project Four: Import /Export Procedure

Any one from the following

1. Import /Export procedure

The students should identify a product of their city/country which is imported /exported. They are required to find the details of the actual import/export procedure. They may take help from the Chambers of Commerce, Banker, existing Importers/Exporters, etc.

They should find details of the procedure and link it with their Text knowledge.

The specimens of documents collected should be pasted in the Project file with a brief description of each. They may also visit railway godowns/dockyards/ transport agencies and may collect pictures of the same.

Presentation and submission of project report.

At the end of the stipulated term, each student will prepare and submit his/her project report. Following essentials are required to be fulfilled for its preparation and submission.

1. The total project will be in a file format, consisting of the recordings of the value of shares and the graphs.
2. The project will be handwritten.
3. The project will be presented in a neat folder.
4. The project report will be developed in the following sequence-
 - Cover page should project the title, student information, school and year.

- List of contents.
- Acknowledgements and preface (acknowledging the institution, the news papers read, T.V. channels viewed, places visited and persons who have helped).
- Introduction.
- Topic with suitable heading.
- Planning and activities done during the project, if any.
- Observations and findings while conducting the project.
- News paper clippings to reflect the changes of share prices.
- Conclusions (summarised suggestions or findings, future scope of study).
- Appendix (if needed).
- Teachers report.
- Teachers will initial preface page.
- At the completion of the evaluation of the project, it will be punched in the centre so that the report cannot be reused but is available for reference only.
- The projects will be returned after evaluation. The school may keep the best projects.

V. Project Five: A visit to any State Emporium (other than your school state).

The purpose of this project is that it leads to -

- Development of deeper understanding of the diversity of products in the states like Assam, Tripura, Nagaland, Mizoram, Manipur, Meghalaya, Sikkim, Arunachal Pradesh, Jammu and Kashmir, Kerala, Chhattisgarh, Telangana, Andhra Pradesh and other states of the country.
- Sensitization and orientation of students about other states, their trade, business and commerce,
- Understanding the cultural and socio-economic aspects of the state by the students,
- Developing the understanding of role of folk art, artisanship and craftsmanship of the state in its growth and economic development
- Understanding the role of gifts of nature and natural produce in the development of trade, business and commerce
- Understanding the role of vocational skills and abilities on the livelihood of artisans/ craftsman
- Understanding of entrepreneurial skills and abilities of the artisans/craftsman
- Understanding of the unemployment problem of the state and role of art and craft of the state in generating employment opportunities
- Value aspect -
- Sense of gratitude - by appreciating the contributions made by others in the betterment of our lives
- Appreciating the dignity of work
- Sensitivity towards social, cultural, ethical and religious differences Benefits of social harmony and peace
- Understanding and appreciating the unity in diversity in India
- Appreciating differences in race, skin colour, languages, religion, habits, festivals, clothing coexistence

Presentation and Submission of Project Report

At the end of the stipulated term, each student will prepare and submit his/her project report.

Following essentials are required to be fulfilled for its preparation and submission.

1. Nature of the business organisation (emporium)
2. Determinants for location of the concerned emporium
3. Is the space rented or owned

4. Nature of the goods dealt in
5. Sources of merchandise of the emporium
6. Role of co-operative societies in the manufacturing and/or marketing of the merchandise
7. Role of gifts of nature or natural produce in the development of goods/merchandise
8. Types of buyers and sellers
9. Modes of goods dispersed, minimum quantity sold and type of carrying bag or package used for delivery of the products sold
10. Factors determining the pricing at the emporium
11. Comparison between the prices of goods available at the emporium with the prices in the open market. Also highlight probable causes of variations if any.
12. Kind of raw material available naturally, used in making the products
13. The technique used in making the products i.e., hand made or machine made
14. Has the child labour being used in making the products sold at the emporium
15. Are the products eco-friendly, in terms of manufacturing, disposal and packing
16. Seasonal factors if any affecting the business of the emporium
17. Weekly/ Monthly non-working days
18. Mode of billing and payments - Cash, Credit Card/ Debit Card, Swipe facility.
19. Does the emporium sell its merchandise in installment / deferred payment basis
20. Do they provide home delivery and after sales services?
21. Different types of promotional campaigns / schemes
22. Assistance by Sales Personnel
23. Export orientation of this emporium and procedure used
24. Policies related to damaged/ returned goods
25. Any government facility available to the emporium
26. Warehousing facilities available / availed
27. Impact of tourism on the business of emporium
28. Additional facility offered to customers
29. Any Corporate Social Responsibility (CSR) assumed by the emporium
30. Contribution made by the emporium to its locality

CLASS XII

The teacher should help students to identify any one project from the given topics.

Students are supposed to select one unit out of four and are required to make only ONE project from the selected unit.

20 marks assigned for Project Work will be divided into two terms for 10 marks each.

I. Project One: Elements of Business Environment

The teachers should help the students in selecting any one element of the following:

1. Changes witnessed over the last few years on mode of packaging and its economic impact. The teacher may guide the students to identify the following changes:
 - a) The changes in transportation of fruits and vegetables such as cardboard crates being used in place of wooden crates, etc. Reasons for above changes.
 - b) Milk being supplied in glass bottles, later in plastic bags and now in tetrapack and through vending machines.
 - c) Plastic furniture [doors and stools] gaining preference over wooden furniture.
 - d) The origin of cardboard and the various stages of changes and growth.
 - e) Brown paper bags packing recycled paper bags to plastic bags and cloth bags.
 - f) Reuse of packaging [bottles, jars and tins] to attract customers for their products.
 - g) The concept of pyramid packaging for milk.
 - h) Cost being borne by the consumer/manufacturer.

i) Packaging used as means of advertisements.

2. The reasons behind changes in the following:

Coca – Cola and Fanta in the seventies to Thumbs up and Campa Cola in the eighties to Pepsi and Coke in the nineties.

The teacher may guide the students to the times when India sold Coca Cola and Fanta which were being manufactured in India by the foreign companies.

The students may be asked to enquire about

- a) Reasons for stopping the manufacturing of the above mentioned drinks in India THEN.
- b) The introduction of Thums up and Campa cola range.
- c) Re-entry of Coke and introduction of Pepsi in the Indian market.
- d) Factors responsible for the change.
- e) Other linkages with the above.
- f) Leading brands and the company having the highest market share.
- g) Different local brands venturing in the Indian market.
- h) The rating of the above brands in the market.
- i) The survival and reasons of failure in competition with the international brands.
- j) Other observations made by the students

The teacher may develop the following on the above lines

3. Changing role of the women in the past 25 years relating to joint families, nuclear families, women as bread earners of the family, changes in the requirement trend of mixers, washing machines, microwave and standard of living.

4. The changes in the pattern of import and export of different Products.

5. The trend in the changing interest rates and their effect on savings.

6. A study on child labour laws, its implementation and consequences.

7. The state of 'anti plastic campaign,' the law, its effects and implementation.

8. The laws of mining /setting up of industries, rules and regulations, licences required for running that business.

9. Social factors affecting acceptance and rejection of an identified product. (Dish washer, Atta maker, etc)

10. What has the effect of change in the environment on the types of goods and services?

The students can take examples like:

a) Washing machines, microwaves, mixers and grinder.

b) Need for crèche, day care centre for young and old.

c) Ready to eat food, eating food outside, and tiffin centres.

11. Change in the man-machine ratio with technological advances resulting in change of cost structure.

12. Effect of changes in the technological environment on the behaviour of employees.

II. Project Two: Principles of Management

The students are required to visit any one of the following:

1. A departmental store.
2. An Industrial unit.
3. A fast food outlet.
4. Any other organisation approved by the teacher.

They are required to observe the application of the general Principles of management advocated by Fayol.

Fayol's principles

1. Division of work.
2. Unity of command.
3. Unity of direction.

4. Scalar chain
5. Espirit de corps
6. Fair remuneration to all.
7. Order.
8. Equity.
9. Discipline
10. Subordination of individual interest to general interest.
11. Initiative.
12. Centralisation and decentralisation.
13. Stability of tenure.

OR

They may enquire into the application of scientific management techniques by F.W. Taylor in the unit visited.

Scientific techniques of management.

1. Functional foremanship.
2. Standardisation and simplification of work.
3. Method study.
4. Motion Study.
5. Time Study.
6. Fatigue Study
7. Differential piece rate plan.

Tips to teacher

- (i) The teacher may organize this visit.
- (ii) The teacher should facilitate the students to identify any unit of their choice and guide them to identify the principles that are being followed.
- (iii) Similarly they should guide the students to identify the techniques of scientific management implemented in the organisation.
- (iv) It may be done as a group activity.
- (v) The observations could be on the basis of
 - The different stages of division of work resulting to specialisation.
 - Following instructions and accountability of subordinates to higher authorities.
 - Visibility of order and equity in the unit.
 - Balance of authority and responsibility.
 - Communication levels and pattern in the organisation.
 - Methods and techniques followed by the organisation for unity of direction and coordination amongst all.
 - Methods of wage payments followed. The arrangements of fatigue study.
 - Derivation of time study.
 - Derivation and advantages of method study.
 - Organisational chart of functional foremanship.
 - Any other identified in the organisation
- vi. It is advised that students should be motivated to pick up different areas of visit. As presentations of different areas in the class would help in better understanding to the other students.
- vii. The students may be encouraged to develop worksheets. Teachers should help students to prepare observation tools to be used for undertaking the project. Examples; worksheets, questionnaires, interviews and organisational charts etc.

III. Project Three: Stock Exchange

The purpose of this project is to teach school students the values of investing and utilising the stock market. This project also teaches important lessons about the economy, mathematics and financial responsibility.

The basis of this project is to learn about the stock market while investing a specified amount of fake money in certain stocks. Students then study the results and buy and sell as they see fit.

This project will also guide the students and provide them with the supplies necessary to successfully monitor stock market trends and will teach students how to calculate profit and loss on stock.

The project work will enable the students to:

- understand the topics like sources of business finance and capital market
- understand the concepts used in stock exchange
- inculcate the habit of watching business channels, reading business journals/newspapers and seeking information from their elders.

The students are expected to:

- a) Develop a brief report on History of Stock Exchanges in India. (your country)
- b) Prepare a list of at least 25 companies listed on a Stock Exchange.
- c) To make an imaginary portfolio totalling a sum of Rs. 50,000 equally in any of the 5 companies of their choice listed above over a period of twenty working days.

The students may be required to report the prices of the stocks on a daily basis and present it diagrammatically on the graph paper.

- They will understand the weekly holidays and the holidays under the Negotiable Instruments Act.

They will also come across terms like closing prices, opening prices, etc.

- During this period of recording students are supposed to distinctively record the daily and starting and closing prices of the week other days under the negotiable instrument act so that they acquire knowledge about closing and opening prices.
- The students may conclude by identifying the causes in the fluctuations of prices.

Normally it would be related to the front page news of the a business journal, for example,

- Change of seasons.
- Festivals.
- Spread of epidemic.
- Strikes and accidents
- Natural and human disasters.
- Political environment.
- Lack of faith in the government policies.
- Impact of changes in government policies for specific industry.
- International events.
- Contract and treaties at the international scene.
- Relations with the neighbouring countries.
- Crisis in developed countries, etc.

The students are expected to find the value of their investments and accordingly rearrange their portfolio. The project work should cover the following aspects;

1. Graphical presentation of the share prices of different companies on different dates.
2. Change in market value of shares due to change of seasons, festivals, natural and human disasters.

3. Change in market value of shares due to change in political environment/ policies of various countries/crisis in developed countries or any other reasons
4. Identify the top ten companies out of the 25 selected on the basis of their market value of shares.

It does not matter if they have made profits or losses.

IV. Project Four: Marketing

1. Adhesives
2. Air conditioners
3. Baby diapers
4. Bathing Soap
5. Bathroom cleaner
6. Bike
7. Blanket
8. Body Spray
9. Bread
10. Breakfast cereal
11. Butter
12. Camera
13. Car
14. Cheese spreads
15. Chocolate
16. Coffee
17. Cosmetology product
18. Crayons
19. Crockery
20. Cutlery
21. Cycle
22. DTH
23. Eraser
24. e-wash
25. Fairness cream
26. Fans
27. Fruit candy
28. Furniture
29. Hair Dye
30. Hair Oil
31. Infant dress
32. Inverter
33. Jams
34. Jeans
35. Jewellery
36. Kurti
37. Ladies bag
38. Ladies footwear
39. Learning Toys
40. Lipstick
41. Microwave oven
42. Mixers
43. Mobile
44. Moisturizer
45. Music player
46. Nail polish
47. Newspaper
48. Noodles
49. Pen
50. Pen drive
51. Pencil
52. Pickles
53. Razor
54. Ready Soups
55. Refrigerator
56. RO system
57. Roasted snacks
58. Salt
59. Sarees
60. Sauces/ Ketchup
61. Shampoo
62. Shaving cream
63. Shoe polish
64. Shoes
65. Squashes
66. Suitcase/ airbag
67. Sunglasses
68. Tea
69. Tiffin Wallah
70. Toothpaste
71. Wallet
72. Washing detergent
73. Washing machine
74. Washing powder
75. Water bottle
76. Water storage tank
77. Wipes

Any more as suggested by the teacher.

The teacher must ensure that the identified product should not be items whose consumption/use is discouraged by the society and government like alcohol products/pan masala and tobacco products, etc.

Identify one product/service from the above which the students may like to manufacture/provide [pre-assumption].

Now the students are required to make a project on the identified product/service keeping in mind the following:

1. Why have they selected this product/service?
2. Find out '5' competitive brands that exist in the market.
3. What permission and licences would be required to make the product?
4. What are your competitors' Unique Selling Propositions?[U.S.P.]?
5. Does your product have any range of details?
6. What is the name of your product?
7. Enlist its features.
8. Draw the 'Label' of your product.
9. Draw a logo for your product.
10. Draft a tagline.
11. What is the selling price of your competitor's product?
 - (i) Selling price to consumer
 - (ii) Selling price to retailer
 - (iii) Selling price to wholesaler

What is the profit margin in percentage to the

- Manufacturer.
- Wholesaler.
- Retailer.

12. How will your product be packaged?
13. Which channel of distribution are you going to use? Give reasons for selection?
14. Decisions related to warehousing, state reasons.
15. What is going to be your selling price?
 - (i) To consumer
 - (ii) To retailer
 - (iii) To wholesaler
16. List 5 ways of promoting your product.
17. Any schemes for
 - (i) The wholesaler
 - (ii) The retailer
 - (iii) The consumer
18. What is going to be your 'U.S.P'?
19. What means of transport will you use and why?
20. Draft a social message for your label.
21. What cost effective techniques will you follow for your product?
22. What cost effective techniques will you follow for your promotion plan?

At this stage the students will realise the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing.

- Product
- Place
- Price
- Promotion

On the basis of the work done by the students the project report should include the following:

1. Type of product /service identified and the (consumer/industries) process involved therein.
2. Brand name and the product.
3. Range of the product.
4. Identification mark or logo.
5. Tagline.
6. Labelling and packaging.
7. Price of the product and basis of price fixation.

8. Selected channels of distribution and reasons thereof.
9. Decisions related to transportation and warehousing. State reasons.
10. Promotional techniques used and starting reasons for deciding the particular technique.
11. Grading and standardisation

ECONOMICS (Code No. 030)

(2021-22)

Rationale

Economics is one of the social sciences, which has great influence on every human being. As economic life and the economy go through changes, the need to ground education in children's own experience becomes essential. While doing so, it is imperative to provide them opportunities to acquire analytical skills to observe and understand the economic realities.

At senior secondary stage, the learners are in a position to understand abstract ideas, exercise the power of thinking and to develop their own perception. It is at this stage, the learners are exposed to the rigour of the discipline of economics in a systematic way.

The economics courses are introduced in such a way that in the initial stage, the learners are introduced to the economic realities that the nation is facing today along with some basic statistical tools to understand these broader economic realities. In the later stage, the learners are introduced to economics as a theory of abstraction.

The economics courses also contain many projects and activities. These will provide opportunities for the learners to explore various economic issues both from their day-to-day life and also from issues, which are broader and invisible in nature. The academic skills that they learn in these courses would help to develop the projects and activities. The syllabus is also expected to provide opportunities to use information and communication technologies to facilitate their learning process.

Objectives:

- Understanding of some basic economic concepts and development of economic reasoning which the learners can apply in their day-to-day life as citizens, workers and consumers.
- Realisation of learners' role in nation building and sensitivity to the economic issues that the nation is facing today.
- Equipment with basic tools of economics and statistics to analyse economic issues. This is pertinent for even those who may not pursue this course beyond senior secondary stage.
- Development of understanding that there can be more than one view on any economic issue and necessary skills to argue logically with reasoning.

ECONOMICS (Code No. 030)
(2021-22)
CLASS XI - TERM-WISE CURRICULUM

Units	TERM 1 - MCQ BASED QUESTION PAPER		Marks
	Theory: 40 Marks	Time: 90 minutes	
Part A	Statistics for Economics		
	Introduction		4
	Collection, Organisation and Presentation of Data		9
	Statistical Tools and Interpretation – Arithmetic Mean, Median and Mode		10
	Sub Total		23
Part B	Introductory Microeconomics		
	Introduction		4
	Consumer's Equilibrium and Demand		13
	Sub Total		17
	Total		40 marks
Part C	Project Work (Part 1): 10 Marks		

Students would prepare only ONE project in the entire academic session, which is divided into 2 terms i.e. Term I and Term II.

TERM 1

Part A: Statistics for Economics

Unit 1: Introduction

What is Economics?

Meaning, scope, functions and importance of statistics in Economics

Unit 2: Collection, Organisation and Presentation of data

Collection of data - sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation.

Organisation of Data: Meaning and types of variables; Frequency Distribution.

Presentation of Data: Tabular Presentation and Diagrammatic Presentation of Data:

(i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and Ogive) and (iii) Arithmetic line graphs (time series graph).

Unit 3: Statistical Tools and Interpretation

Measures of Central Tendency- Arithmetic mean, median and mode

Part B: Introductory Microeconomics

Unit 4: Introduction

Meaning of microeconomics and macroeconomics; positive and normative economics

What is an economy? Central problems of an economy: what, how and for whom to produce; opportunity cost.

Unit 5: Consumer's Equilibrium and Demand

Consumer's equilibrium - meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis.

Indifference curve analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of consumer's equilibrium.

Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-change method.

Part C: Project in Economics - Guidelines as given in class XII curriculum

Units	TERM 2 - SUBJECTIVE QUESTION PAPER		Marks
	Theory: 40 Marks	Time: 2 Hours	
Part A	Statistics for Economics		
	Statistical Tools and Interpretation – Measures of Dispersion, Correlation, Index Number		17
	Sub		17
Part B	Introductory Microeconomics		
	Producer Behaviour and Supply		13
	Forms of Market and Price Determination under perfect competition with simple applications		10
	Sub Total		23
	Total		40 marks
Part C	Project Work (Part 2): 10 Marks		

Part A: Statistics for Economics

Unit 3: Statistical Tools and Interpretation

Measures of Dispersion - absolute dispersion (standard deviation); relative dispersion (coefficient of variation)

Correlation – meaning and properties, scatter diagram; Measures of correlation - Karl Pearson's method (two variables ungrouped data)

Introduction to Index Numbers - meaning, types - wholesale price index, consumer price index, uses of index numbers; Inflation and index numbers.

Part B: Introductory Microeconomics

Unit 6: Producer Behaviour and Supply

Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product.

Returns to a Factor

Cost: Short run costs - total cost, total fixed cost, total variable cost; Average cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationships.

Revenue - total, average and marginal revenue - meaning and their relationship.

Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage-change method.

Unit 7: Forms of Market and Price Determination under Perfect Competition with simple applications.

Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply.

Simple Applications of Demand and Supply: Price ceiling, price floor.

Part C: Project in Economics - Guidelines as given in class XII curriculum

ECONOMICS (Code No. 030)
(2021-22)
CLASS XII - TERM-WISE CURRICULUM

TERM 1 - MCQ BASED QUESTION PAPER	Marks	Periods
Theory: 40 Marks		
Time: 90 minutes		
Part A: Introductory Macroeconomics		
▪ Money and Banking	6	8
▪ Government Budget and the Economy	6	15
▪ Balance of Payments	6	7
Sub Total	18	30
Part B: Indian Economic Development		
▪ Development Experience (1947-90) and Economic Reforms since 1991: <ul style="list-style-type: none"> ● Indian Economy on the eve of Independence ● Indian Economy (1950-90) ● Liberalisation, Privatisation and Globalisation : An Appraisal 	12	28
▪ Current challenges facing Indian Economy <ul style="list-style-type: none"> ● Poverty ● Human Capital Formation ● Rural development 	10	17
Sub Total	22	45
Total	40	75
Project Work (Part 1): 10 Marks		

Students would prepare only ONE project in the entire academic session, which is divided into 2 terms i.e. Term I and Term II.

Term 1

Part A: Introductory Macroeconomics

Unit 2: Money and Banking

8 Periods

Money - meaning and supply of money - Currency held by the public and net demand deposits held by commercial banks.

Money creation by the commercial banking system.

Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Control of Credit

Unit 4: Government Budget and the Economy

15 Periods

Government budget - meaning, objectives and components.

Classification of receipts - revenue receipts and capital receipts; classification of expenditure – revenue expenditure and capital expenditure.

Measures of government deficit - revenue deficit, fiscal deficit, primary deficit their meaning.

Unit 5: Balance of Payments

7 Periods

Balance of payments account - meaning and components;
Foreign exchange rate - meaning of fixed and flexible rates and managed floating.

Part B: Indian Economic Development

Unit 6: Development Experience (1947-90) and Economic Reforms since 1991

28 Periods

A brief introduction of the state of Indian economy on the eve of independence.
Indian economic system and common goals of Five Year Plans.
Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy), industry (IPR 1956; SSI – role & importance) and foreign trade.

Economic Reforms since 1991:

Features and appraisals of liberalisation, globalisation and privatisation (LPG policy);
Concepts of demonetization and GST

Unit 7: Current challenges facing Indian Economy

17 Periods

Poverty- absolute and relative; Main programmes for poverty alleviation: A critical assessment;

Human Capital Formation: How people become resource; Role of human capital in economic development;

Rural development: Key issues - credit and marketing - role of cooperatives; agricultural diversification;

TERM 2 - SUBJECTIVE QUESTION PAPER		Marks	Periods
Theory: 40 Marks	Time: 2 Hours		
Part A: Introductory Macroeconomics			
▪ National Income and Related Aggregates		10	23
▪ Determination of Income and Employment		12	22
Sub Total		22	45
Part B: Indian Economic Development			
▪ Current challenges facing Indian Economy <ul style="list-style-type: none"> ● Employment ● Infrastructure ● Sustainable Economic Development 		12	18
▪ Development Experience of India – A Comparison with Neighbours- <ul style="list-style-type: none"> ● Comparative Development Experience of India and its Neighbours 		06	12
Sub Total		18	30
Total		40	75
Project Work: 10 Marks			

Term – II

Part A: Introductory Macroeconomics

Unit 1: National Income and Related Aggregates

23 Periods

What is Macroeconomics?

Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.

Circular flow of income (two sector model); Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.

Aggregates related to National Income:

Gross National Product (GNP), Net National Product (NNP), Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost; Real and Nominal GDP. GDP and Welfare

Unit 3: Determination of Income and Employment

22 Periods

Aggregate demand and its components.

Propensity to consume and propensity to save (average and marginal).

Short-run equilibrium output; investment multiplier and its mechanism.

Meaning of full employment and involuntary unemployment.

Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes and money supply through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.

Part B: Indian Economic Development

Unit 7: Current challenges facing Indian Economy

18 Periods

Employment: Growth and changes in work force participation rate in formal and informal sectors; problems and policies

Infrastructure: Meaning and Types: Case Studies: Health: Problems and Policies- A critical assessment;

Sustainable Economic Development: Meaning, Effects of Economic Development on Resources and Environment, including global warming

Unit 8: Development Experience of India:

12 Periods

A comparison with neighbours

India and Pakistan

India and China

Issues: economic growth, population, sectoral development and other Human Development Indicators

Part C: Project in Economics	15 Periods
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Prescribed Books:

1. Statistics for Economics, NCERT
2. Indian Economic Development, NCERT
3. Introductory Microeconomics, NCERT
4. Macroeconomics, NCERT
5. Supplementary Reading Material in Economics, CBSE

Guidelines for Project Work: 20 Marks (ECONOMICS)

Only **ONE** Project is to be done throughout the session.

1. The objectives of the project work:

Objectives of project work are to enable learners to:

- Probe deeper into personal enquiry, initiate action and reflect on knowledge and skills, views etc. acquired during the course of class XI-XII.
- analyse and evaluate real world scenarios using theoretical constructs and arguments
- demonstrate the application of critical and creative thinking skills and abilities to produce an independent and extended piece of work
- follow up aspects in which learners have interest
- develop the communication skills to argue logically

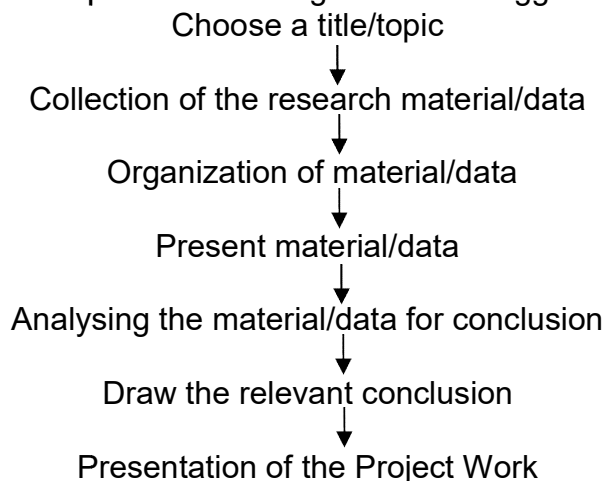
2. Role of the teacher:

The teacher plays a critical role in developing thinking skills of the learners. A teacher should:

- help each learner select the topic after detailed discussions and deliberations of the topic;
- play the role of a facilitator to support and monitor the project work of the learner through periodic discussions;
- guide the research work in terms of sources for the relevant data;
- ensure that students must understand the relevance and usage of primary evidence and other sources in their projects and duly acknowledge the same;
- ensure that the students are able to derive a conclusion from the content; cite the limitations faced during the research and give appropriate references used in doing the research work.
- educate learner about plagiarism and the importance of quoting the source of the information to ensure authenticity of research work.
- prepare the learner for the presentation of the project work.
- arrange a presentation of the project file.

3. Steps involved in the conduct of the project:

Students may work upon the following lines as a suggested flow chart:



- The project work can be in the form of Power Point Presentation/Exhibition/Skit /albums/files/song and dance or culture show /story telling/debate/panel discussion,

paper presentation and so on. Any of these activities which are suitable to visually impaired/differently-abled candidates can be performed as per the choice of the student.

4. Expected Checklist for the Project Work:

- Introduction of topic/title
- Identifying the causes, events, consequences and/or remedies
- Various stakeholders and effect on each of them
- Advantages and disadvantages of situations or issues identified
- Short-term and long-term implications of strategies suggested in the course of research
- Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
- Presentation and writing that is succinct and coherent in project file
- Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

5. Term-Wise Assessment of Project Work:

- Project Work has broadly the following phases: Synopsis/ Initiation, Data Collection, Data Analysis and Interpretation, Conclusion.
- The aspects of the project work to be covered by students can be assessed during the two terms.
- **20 marks assigned for Project Work can be divided in to two terms in the following manner:**

TERM-I PROJECT WORK (Part 1): 10 Marks

The teacher will assess the progress of the project work in the term I in the following manner:

Month	Periodic Work	Assessment Rubrics	Marks
1-3 July- September	Instructions about Project Guidelines, Background reading Discussions on Theme and Selection of the Final Topic, Initiation/ Synopsis	Introduction, Statement of Purpose/Need and Objective of the Study, Hypothesis/Research Question, Review of Literature, Presentation of Evidence, Key Words, Methodology, Questionnaire, Data Collection.	5
4-5 October- November	Planning and organisation: forming an action plan, feasibility or baseline study, Updating/modifying the action plan, Data Collection	Significance and relevance of the topic; challenges encountered while conducting the research.	5
October- November	Mid-term Assessment by internal examiner		10

TERM- II - PROJECT WORK (Part 2): 10 Marks

The teacher will assess the progress of the project work in the term II in the following manner:

Month	Periodic Work	Assessment Rubrics	Marks
6-7 December- January	Content/data analysis and interpretation. Conclusion, Limitations, Suggestions, Bibliography, Annexures and Overall Presentation of the project.	Content analysis and its relevance in the current scenario. Conclusion, Limitations, Bibliography, Annexures and Overall Presentation.	5
8 January/ February	Final Assessment and VIVA by both Internal and External Examiners	External/ Internal Viva based on the project	5
		TOTAL	10

6. Viva-Voce

- At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner.
- The questions should be asked from the Research Work/ Project File of the learner.
- The Internal Examiner should ensure that the study submitted by the learner is his/her own original work.
- In case of any doubt, authenticity should be checked and verified.

Expected Checklist:

- Introduction of topic/title
- Identifying the causes, consequences and/or remedies
- Various stakeholders and effect on each of them
- Advantages and disadvantages of situations or issues identified
- Short-term and long-term implications of economic strategies suggested in the course of research
- Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
- Presentation and writing that is succinct and coherent in project file
- *Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.*

Mode of presentation/submission of the Project:

At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner. The questions should be asked from the Research Work/ Project File of the learner. The Internal Examiner should ensure that the study submitted by the learner is his/her own original work. In case of any doubt, authenticity should be checked and verified.

Suggestive List of Projects:

Class XI	
·Effect on PPC due to various government policies	·Invisible Hand (Adam Smith)
·Opportunity Cost as an Economic Tool (taking real life situations)	·Effect of Price Change on a Substitute Good (taking prices from real life visiting local market)
·Solar Energy, a Cost Effective Comparison with Conventional Energy Sources	·Bumper Production- Boon or Bane for the Farmer
·Any other newspaper article and its evaluation on basis of economic principles	·Any other topic

Class XII	
·Micro and Small Scale Industries	·Food Supply Channel in India
·Contemporary Employment situation in India	·Disinvestment policy of the government
·Goods and Services Tax Act and its Impact on GDP	·Health Expenditure (of any state)
·Human Development Index	·Inclusive Growth Strategy
·Self-help group	·Trends in Credit availability in India
·Monetary policy committee and its functions	·Role of RBI in Control of Credit
·Government Budget & its Components	·Trends in budgetary condition of India
·Exchange Rate determination – Methods and Techniques	·Currency War – reasons and repercussions
·Livestock – Backbone of Rural India	·Alternate fuel – types and importance
·SarwaSikshaAbhiyan – Cost Ratio Benefits	·Golden Quadrilateral- Cost ratio benefit
·Minimum Support Prices	·Relation between Stock Price Index and Economic Health of Nation
·Waste Management in India – Need of the hour	·Minimum Wage Rate – approach and Application
·Digital India- Step towards the future	·Rain Water Harvesting – a solution to water crises
·Vertical Farming – an alternate way	·Silk Route- Revival of the past
·Make in India – The way ahead	·Bumper Production- Boon or Bane for the farmer
·Rise of Concrete Jungle- Trend Analysis	·Organic Farming – Back to the Nature
·Any other newspaper article and its evaluation on basis of economic principles	·Any other topic

HOME SCIENCE (Code No. 064)

(CLASS – XI - XII)

(2021-2022)

Preface

The course in Home Science encompasses five areas namely, Foods and Nutrition, Human Development and Family Studies, Fabric and Apparel, Resource Management and Communication and Extension. All these domains have their specific content in focus that contributes to the study of the individual and the family in Indian social cultural context.

The purpose of Home Science is the creation of an environment and outlook to enable learner to live a richer and more purposeful life, become future ready and develop 21st century life skills for work, livelihood and careers. All the domains within the home science discipline provide ample scope for professional avenues of higher education and career opportunities. They range from professions catering to various health and service institutions/agencies, educational organizations, industry and business houses of textiles, garments, food industry, teaching learning materials, ergonomically appropriate equipment and work situations. The subject integrates the application of various sciences and humanities to improve Human Environment, Family Nutrition, Management of Resources and Child Development.

In class XI, the “Self and family” and the “Home” are focal points for understanding the dynamics for individual lives and social interactions.

In class XII, the emphasis is on “Work and careers” through the life span.

Learning Objectives:

The Home Science curriculum at senior secondary level has been framed to enable the learners to:

1. develop an understanding of the self and one’s role and responsibilities as a productive individual and as a member of family, community and society.
2. integrate learning across diverse domains and undertake a critical analysis of issues and concerns specific to family, community and society.
3. appreciate the discipline of Home Science for professional careers.
4. acquaint learners with the basic knowledge specific to five domains

namely, Foods and nutrition, Human Development and Family studies, Fabric and Apparel, Resource Management and Communication and Extension.

5. develop functional skills in the five domains for career and employment.
6. equip learners for enrichment and higher studies.

Learning outcomes:

After undertaking the course students will:

1. function as a productive and responsible individual in relation to self, family, community and society.
2. able to apply the basics of human development with specific reference to self, family and community.
3. able to utilize the skills of judicious management of various resources.
4. will be sensitized to fabric and apparel, their selection and care.
5. inculcate healthy food habits and lifestyle to enable prevention and management of diseases.
6. become alert and aware consumer.
7. appreciate the potential of entrepreneurship and other varied professional opportunities to make informed career choices.

Class XI HOME SCIENCE

Introduction:

In class XI, the “Self and family” and the “Home” are focal points for understanding the dynamics for individual lives and social interactions. The curriculum is divided in five units. Unit I introduces the concept of home science. Unit II begins with the stage of adolescence and related concerns. Unit III deals with the expanding interactions of the adolescent with others in family, school, community and society, and the needs emerging from each of these contexts. Unit IV and V focus on childhood and adulthood respectively.

TERM I

Course Structure: Theory and Practical

Theory: 35 Marks

UNIT No.	Units	Marks	No. of Pd.
1.	Introduction to Home Science	02	05
2.	Understanding oneself- Adolescence	18	45
3.	Understanding Family, Community and Society	15	40
	Total	35	90

TERM II

Course Structure: Theory and Practical

Theory: 35 Marks

UNIT No.	UNIT	Marks	No. of Pd.
4.	Childhood	17	45
5.	Adulthood	18	45
	Total	35	90

CLASS XI HOME SCIENCE

TERM I

Unit I Introduction to Home Science

Unit II: Understanding oneself: Adolescence

Ch.- Understanding the Self.

- A. 'Who am I'?
- B. Development and Characteristics of the Self(Development characteristics and needs of adolescents)
- C. Influences on Identity

Ch.- Food, Nutrition, Health and Fitness

Ch. - Management of Resources

Ch.- Fabric Around us

Ch-Media and Communication Technology

Unit III: Understanding family, community and society

Ch. - Concerns and needs in diverse contexts:

- a. Nutrition, Health and Hygiene
- b. Resources Availability and Management

TERM II

Unit IV: Childhood

Ch.-Survival, Growth and Development

Ch.- Nutrition, Health and Wellbeing

Ch.- Our Apparel

Unit V: Adulthood

Ch.- Health and Wellness

Ch.- Financial Management and planning

Ch.- Care and Maintenance of fabrics

Prescribed textbook: Human Ecology and Family Sciences(For class XI): Part I and Part II

CLASS XI HOME SCIENCE

TERM I

REFERENCE POINTS

UNIT I: INTRODUCTION TO HOME SCIENCE

- What is Home Science
- Areas of Home Science
- Home Science is important for both boys and girls
- Career options of Home Science

UNIT II: UNDERSTANDING ONESELF: ADOLESCENCE

Unit II focus on the stage of adolescence – the stage of life to which you belong at present. This unit deals with understanding your own self in terms of your personal and social identity, your nutritional and health requirements, management of basic resources of time and space, fabrics around you, and your communication skills. The last chapter of the unit situates the adolescent in the context of the family and larger society, thereby linking it to the next unit that deals with the individual in relation to her/his family, school, community and society.

CHAPTER : UNDERSTANDING THE SELF

- What is Self?
 - Personal dimension
 - Social dimension
 - Self- concept
 - Self esteem

- What is Identity?
 - Personal identity
 - Social identity

- Self during Infancy: characteristics
- Self during early childhood: characteristics
- Self during middle childhood: characteristics
- Self during adolescence: characteristics
 - Identity development
 - Identity crisis
 - Real vs Ideal self

- Influences on identity
 - Developing a sense of self and identity
 - Influences on formation of identity
 - Biological and physical changes
 - Socio-cultural context
 - Emotional changes
 - Cognitive changes

CHAPTER : FOOD, NUTRITION, HEALTH AND FITNESS

- Introduction
- Definition of
 - Food
 - Nutrition
 - Nutrients
- Balanced diet
 - Definition
 - RDA
- Health and Fitness
- Using Basic food Groups for planning Balanced Diets
 - Food guide pyramid.
- Vegetarian food Guide
- Dietary patterns in Adolescence
 - Irregular meals and skipping meals
 - Snacking
 - Fast foods
 - Dieting
- Modifying diet related behaviour
 - Diet journal
 - Exercise
 - Substance use and abuse
 - Healthy eating habits
 - Snacks
 - Drinking water
- Factors influencing eating behaviour
- Eating disorders at adolescence
- Key terms and their meaning

CHAPTER : MANAGEMENT OF RESOURCES

- Introduction
- Classification of resources
 - Human /non-human resources
 - Individual / shared resources
 - Natural / community resources
- Human and non-human resources
 - Human resources
 - Knowledge
 - Motivation/ interest
 - Skills/ strength/ aptitude
 - Time
 - Energy
 - Non-human resources
 - Money
 - Material resources
- Individual and shared resources
 - Individual resources
 - shared resources
- Natural and community resources
 - Natural resources
 - community resources
- Characteristics of resources
 - Utility
 - Accessibility
 - Interchangeability
 - Manageable
- Managing Resources
 - Management process
 - Planning
 - Steps in planning
 - Organising
 - Implementing
 - Controlling
 - Evaluation

CHAPTER : FABRIC AROUND US

- Definition of yarns, fibres, textile products, finishing.
- Introduction to fibre properties

- Classification of textile fibres
 - Filament/staple fibres
 - Natural/Manufactured (manmade) fibres
- Types of Natural Fibres
 - Cellulosic fibres
 - Protein fibres
 - Mineral fibres
 - Natural rubber
- Types of Manufactured Fibres
 - Regenerated cellulosic fibres
 - Modified cellulosic fibres
 - Protein fibres
 - Non-cellulosic fibres
 - Mineral fibres
- Some Important fibres and their properties
 - Cotton
 - Linen
 - Wool
 - Silk
 - Rayon
 - Nylon
 - Polyester
 - Acrylic
 - Elastomeric fibres
- Yarns
- Yarn processing
 - Cleaning
 - Making into a sliver
 - Attenuating, drawing out and twisting
- Yarn terminology
 - Yarn number
 - Yarn twist
 - Yarn and thread
- Fabric production
 - Weaving
 - Knitting
 - Braiding
 - Nets
 - Laces
- Textile Finishing
 - Finishing with colour

- Printing

CHAPTER-MEDIA COMMUNICATION TECHNOLOGY

- Communication and Communication Technology
 - What is Communication
 - Classification of communication
 - How does communication takes place
- What is media
 - Media classification and functions
- What is communication technology
 - Classification of communication technologies
 - Modern communication technologies

UNITIII: UNDERSTANDING FAMILY, COMMUNITY AND SOCIETY

The chapters in Unit II were all addressed to you for the understanding of self and of the factors that influence your decision making. Let us now move on to understanding the family, the community and the society that you are a part of. In the first section- the focus will be on relationships and interactions with significant others, i.e. those important to you in these contexts. The second section- will discuss concerns and needs, such as those of health, work, resources, education and textile tradition in the adolescent's diverse social contexts.

CHAPTER : CONCERNS AND NEEDS IN DIVERSE CONTEXTS

A. NUTRITION, HEALTH AND HYGIENE

- Health and its Dimensions
 - Social health
 - Mental health
 - Physical health
- Health care Indicators of Health
- Nutrition and Health
- Importance of nutrients
- Factors affecting nutritional well being
 - Food and nutrient security
 - Care for the vulnerable
 - Good health for all
 - Safe environment

- Nutritional Problems and their consequences
 - Malnutrition
 - Under nutrition
 - Over nutrition
- Hygiene and Sanitation
 - Personal Hygiene
 - Environmental Hygiene
 - Food Hygiene
 - Water safety

B. RESOURCES AVAILABILITY AND MANAGEMENT

- Time Management
 - Definition of time plan
 - How good is your time management (Activity)?
 - Steps in making time plan
 - Tips for effective time management
 - Tools in time management---Peak load period, Work curve, Rest /break periods, Work simplification
- Space Management
 - Space and the home
 - Principles of space planning

TERM II

UNIT IV: CHILDHOOD

The theme of this unit is 'Childhood'. You may wonder why did the book address the adolescent years first and childhood later. Well, it is because if you as an adolescent understand issues about yourself first, it would be easier to grasp the issues that are concerned with the stage of childhood, and later with adulthood. In this unit you will be studying about children's growth and development, critical concerns about their health and nutrition, education and clothing. As we would like children with disabilities to be an inclusive part of our society, the chapters provide us important information on their needs and ways to meet them.

CHAPTER : SURVIVAL GROWTH AND DEVELOPMENT

- The meaning of survival
- Growth and development
- Areas of development

- Physical development
- Motor development
- Cognitive development
- Sensory development
- Language development
- Social development
- Emotional development
- Good Nutrition
- Stages in development
 - Neonate
 - Reflexes
 - Sensory capabilities
- Development across stages from infancy to adolescence
 - Physical and motor development
 - Language development
 - Socio –emotional development
 - Cognitive development
 - Mental processes involved in thinking
 - Stages of cognitive development
 - ❖ Sensory motor stage
 - ❖ Pre-operational stage
 - ❖ Concrete operational stage
 - ❖ Formal operational stage

CHAPTER : NUTRITION, HEALTH AND WELL-BEING

- Introduction
- Nutrition, Health and Well-being during infancy (birth – 12 months)
 - Dietary requirements of infants
 - Breast feeding
 - Benefits of breast feeding
 - Feeding the low birth weight infants
 - Complementary foods
 - Guidelines for complementary feeding
 - Immunization
 - Common health and nutrition problems in infants and young children
- Nutrition, Health and well-being of preschool children (1-6 years)
 - Nutritional needs of preschool children
 - Guidelines for healthy eating for pre-schoolers

- Planning balanced meals for preschool children
- Some examples of low-cost snacks
- Feeding children with specific needs
- Immunization
- Nutrition, Health and well-being of school-age children (7-12 years)
 - Nutritional requirements of school children
 - Planning diets for school-age children
 - Factors that influence diet intake of preschool-age and school-age children
 - Healthy habits
 - Health and nutrition issues of school age children

CHAPTER: OUR APPAREL

- Clothing functions and the selection of clothes
 - Modesty
 - Protection
 - Status and prestige
 - Adornment
- Factors affecting selection of clothing in India
 - Age
 - Climate and season
 - Occasion
 - Fashion
 - Income
- Understanding children's basic clothing needs
 - Comfort
 - Safety
 - Self help
 - Appearance
 - Allowance for growth
 - Easy care
 - Fabrics
- Clothing requirements at different childhood stages
 - Infancy (birth to six months)
 - Creeping age (6 months to one year)
 - Toddlerhood (1-2 years)
 - Preschool age (2-6 years)
 - Elementary school years (5-11 years)
 - Adolescents (11-19 years)

- Clothes for children with special needs

UNIT V: ADULTHOOD

With the advent of adulthood, the adolescent passes through the portal of what may be termed as the “real world”. One enters the world of higher education, work and marriage, and gets involved in establishing one’s own family. Hence responsibilities of the individual increases manifold. In this unit you will learn about the major factors that play a role in determining the quality of adult life, these being health and wellness, financial planning and management, maintenance of fabrics and apparel that one uses personally as well as in the home, and appreciation of different perspectives in communication. The unit concludes with the chapter on individual responsibilities and rights, not only for one’s own self, but also in relation to the family and larger society.

CHAPTER : HEALTH AND WELLNESS

- Importance of health and fitness
- Healthy & Unhealthy diet
- BMI
- Do’s and Don’ts for health promoting diets
- Fitness
- Importance of exercise and physical activities in adulthood
- Wellness
- Qualities of a person who is rated high on wellness
- Dimensions of wellness
 - Social aspect
 - Physical aspect
 - Intellectual aspect
 - Occupational aspect
 - Emotional aspect
 - Spiritual aspect
 - Environmental aspect
 - Financial aspect
- Stress and coping with stress
- Simple techniques to cope with stress
 - Relaxation
 - Talking with friends/family
 - Reading

- Spirituality
- Music
- Hobby
- Yoga

CHAPTER : FINANCIAL MANAGEMENT AND PLANNING

- Financial management
- Financial planning
- Management
- Money and its importance
- Family Income
 - Money income
 - Real income: Direct and Indirect income
 - Psychic income
- Income management
- Budget
- Steps in making budget
- Advantages of planning family budgets
- Control in money management
 - Checking to see how well the plan is progressing
 - Mental and mechanical check
 - Records and accounts
 - Adjusting wherever necessary
 - Evaluation
- Savings
- Investment
- Principles underlying sound investments
 - Safety to the principle amount
 - Reasonable rate of interest
 - Liquidity
 - Recognition of effect of world conditions
 - Easy accessibility and convenience
 - Investing in needed commodities
 - Tax efficiency
 - After investment service
 - Time period
 - Capacity
- Savings and investment avenues
 - Post office

- Banks
- Unit Trust of India
- NSC
- Mutual funds
- Provident funds
- Chit fund
- Life insurance and medical insurance
- Pension scheme
- Gold, house, land
- Others (new schemes)
- Credit
- Need of credit
- 4C's of credit: character, capacity, capital means, collateral,

CHAPTER : CARE AND MAINTENANCE OF FABRICS

- Mending
- Laundering
 - Stain removal
 - Vegetable stains
 - Animal stains
 - Oil stains
 - Mineral stains
 - Dye bleeding
 - Techniques of stain removal
 - Scraping
 - Dipping
 - Sponging
 - Drop method
 - Reagent for stain removal
 - Common stains and method of removing
- Removal of dirt: the cleaning process
 - Soaps and detergents
 - Methods of washing: friction, kneading & squeezing, suction, washing by machine
- Finishing
 - Blues and optical brighteners
 - Starches and stiffening agents
- Ironing
- Dry cleaning
- Storage of textile products
- Factors affecting fabric care

- Yarn structure
 - Fabric construction
 - Colour and finishes
- Care label

NOTE:

- **Wherever required latest data/figures to be used.**
- **Latest RDA's to be used.**

CLASS XI HOME SCIENCE PRACTICALS

TERM I

1. Understanding oneself with reference to:
 - a) Physical development in terms of age, height, weight, hip and chest circumference.
 - b) Sexual maturity (Age at menarche ,Development of breasts : girls).
(Growth of beard, change in voice: boys)
2. Observe developmental norms: (Physical, Motor, Language and social -emotional) birth to three years.
3. List and discuss 4-5 areas of agreement and disagreement with
 - a) Mother
 - b) Father
 - c) Siblings/ Friends
 - d) Teacher
4.
 - a) Record own diet for a day
 - b) Evaluate qualitatively for adequacy
5.
 - a) Record one day's activities relating to time use and work
 - b) Prepare a time plan for yourself
6. Preparation of different healthy snacks for an adolescent suitable in her/his context.

TERM II

1. Plan a budget for a given situation/purpose.
2.
 - a) Record the fabrics and apparel used in a day
 - b) Categorize them according to functionality
3. Relationship of fibre properties to their usage:
 - a) Thermal property and flammability
 - b) Moisture absorbency and comfort
4.
 - (a) Analyze label of any one garment with respect to: Clarity, fibre content,
size and care instructions.
 - (b) Prepare one care label of any garment.
 - (c) Analyze two different fabric samples for color

**SCHEME FOR PRACTICAL EXAMINATION
CLASS XI HOME SCIENCE**

TERM I

1.	Observe developmental norms: (Physical, Motor, Language and social emotional) birth to three years OR List and discuss 4-5 areas of agreement and disagreement with a) Mother b) Father c) Siblings/ Friends d) Teacher	5 Marks
2.	Preparation of healthy snacks for an adolescent	7 Marks
3.	Prepare a time plan for yourself	3 Marks
	TOTAL	15 MARKS

TERM II

1.	Plan a budget for a given situation/purpose	3 Marks
2	Relationship of fibre properties to their usage: a) Thermal property and flammability b) Moisture absorbency and comfort OR Prepare one care label of any garment.	5 Marks
3.	File	5 Marks
4.	Viva	2 Marks
	TOTAL	15 MARKS

Class XII HOME SCIENCE

Introduction:

In class XII, the emphasis is on “Work and careers” through the life span. Within the curriculum the significance and scope of each domain (Foods and Nutrition, Human Development and Family Studies, Fabric and Apparel, Resource Management and Communication and Extension), the multiple thrust areas emerging within them have been emphasized. The units spell out the basic concepts, requisite knowledge and skills in each thrust areas and delineate the career avenues and the preparation required for them in order to make informed career choices.

TERM I

Course Structure: Theory and practical

Theory:35 marks

UNIT No.	Units	Marks	No. of Periods
1	Work, Livelihood and Career	05	10
2	Nutrition, Food Science and Technology	20	45
3	Human Development and Family Studies	10	35
	THEORY	35	90

TERM II

Course Structure: Theory and practical

Theory: 35 marks

No.	Units	Marks	No. of Periods
4	Fabric and Apparel	16	40
5	Resource Management	12	35
6	Communication and Extension	07	15
	THEORY	35	90

CLASS XII HOME SCIENCE

TERM I

UNIT I: Work, livelihood and Career

Ch. Work, livelihood and Career

UNIT II: Nutrition, Food Science and Technology

Ch. Clinical Nutrition and Dietetics

Ch. Public Nutrition and Health

Ch. Food Processing and Technology

Ch. Food Quality and Food Safety

UNIT III: Human Development and Family Studies

Ch. Early Childhood Care and Education

Ch. Management of Support Services, Institutions and Programmes for Children, Youth and Elderly

TERM II

UNIT IV: Fabric and Apparel

Ch. Design for Fabric and Apparel

Ch. Fashion Design and Merchandising

Ch. Care and Maintenance of Fabrics in Institutions

UNIT V: Resource management

Ch. Hospitality Management

Ch. Consumer Education and Protection

UNIT VI: Communication and Extension

Ch. Development Communication and Journalism

Prescribed textbook: Human Ecology and Family Sciences (For Class XII): Part I and Part II

**CLASS XII HOME SCIENCE
TERM I**

REFERENCE POINTS

UNIT I WORK ,LIVELIHOOD AND CAREER

Chapter: WORK ,LIVELIHOOD AND CAREER

- Introduction
 - Work and meaningful work
 - Work, careers and livelihood
- Traditional occupation in India
 - Agriculture
 - Handicrafts
 - Indian cuisine
 - Visual arts
- Work ,Age and Gender
 - Gender issues in relation to work
 - Issues and concerns related to women and work
 - ✓ KGBV
 - ✓ Beti bachao ,Beti Padhao Yojana
- Attitudes and approaches to work and life skills for livelihood
 - Attitudes and approaches to work
 - Life skills for livelihood
 - Essential soft skills at workplace
- Ergonomics
 - Definition and need for ergonomics
 - Benefits of Ergonomics
- Entrepreneurship
 - Definition and characteristics

UNIT II NUTRITION, FOOD SCIENCE AND TECHNOLOGY

Chapter: CLINICAL NUTRITION AND DIETETICS

- Introduction

- Nutrition
- Clinical Nutrition
- Significance
- Basic concepts
 - Diet therapy
- Types of diets: Regular Diet and Modified diets
 - Changes in consistency
 - Feeding routes
 - Prevention of chronic diseases
- Preparing for career
- Scope

Chapter: PUBLIC NUTRITION AND HEALTH

- Introduction
- Significance
- Basic concept
 - Public health nutrition
 - Nutritional Problems of India
 - Protein energy malnutrition
 - Micronutrient deficiencies
 - Iron deficiency anemia
 - Vitamin A deficiency
 - Iodine deficiency disorders
- Strategies/Intervention to tackle Nutritional problems
 - Diet or food based strategies
 - Nutrient based strategies
- Nutrition programmes operating in India
 - ICDS
 - Nutrient Deficiency Control Programmes
 - Food Supplementation Programmes
 - Food Security Programme
- Health Care
- Scope

Chapter: FOOD PROCESSING AND TECHNOLOGY

- Introduction
- Significance
- Basic Concepts
 - Food Science

- Food Processing
- Food Technology
- Food Manufacturing
- Development of food processing and technology
- Importance of Food processing and Preservation
- Classification of food on the basis of extent and type of processing
- Preparing for a career
- Scope

Chapter: FOOD QUALITY AND FOOD SAFETY

- Introduction
- Significance
- Basic Concepts
 - Food safety (Toxicity & Hazard)
 - Hazards (Physical, chemical and biological)
 - Food infection
 - Food poisoning
 - Food quality
- Food standards regulation in India-FSSA (2006)(Fruit and vegetable product order, Meat food product order and Vegetable oil products order are not included)
- International Organization and agreements in the area of Food Standards, Quality, Research and Trade
 - Codex Alimentarius Commission
 - International Organization for Standardisation
 - World Trade Organization
- Food Safety Management Systems
 - Good manufacturing practices (GMP)
 - Good handling practices (GHP)
 - Hazard Analysis Critical Control Points (HACCP)
- Scope

UNIT III HUMAN DEVELOPMENT AND FAMILY STUDIES

Chapter: Early Childhood Care and Education

- Significance
- Basic concepts
- Preparing for a career
- Scope

Chapter: Management of support services, Institutions and programmes for children, youth and elderly

- Significance
- Basic concepts
- Why are children vulnerable?
- Institutions, programmes and initiatives for children
 - ICDS
 - SOS Children's Village
 - Children's Homes run by the Government
 - Adoption
- Why are Youth vulnerable?
- Youth programmes in India
- Why are the elderly vulnerable?
- Some programmes for the elderly
- Preparing for a career
- Scope

UNIT IV FABRIC AND APPAREL

Chapter: Design for Fabric and Apparel

- Introduction
- Basic concepts (Design: Structural & Applied)
- Elements of design
 - Colour
 - Texture
 - Line
 - Shapes or form
- Principles of Design
 - Proportion
 - Balance
 - Emphasis
 - Rhythm
 - Harmony
- Preparing for career
- Scope

Chapter: Fashion Design and Merchandising

- Introduction
- Significance
- Basic Concepts

- Fashion terminology –Fashion ,fads, style, classic
- Fashion Development
 - France-The centre of fashion
 - Fashion Evolution
- Fashion Merchandising
- Fashion Retail Organization
- Preparing For a career
- Scope

Chapter: Care and maintenance of fabrics in Institution

- Introduction
- Basic concepts
 - Washing equipment
 - Drying equipment
 - Ironing/pressing equipment
- Institutions
- Preparing for a career
- Scope

UNIT V RESOURCE MANAGEMENT

Chapter: Hospitality Management

- Introduction
- Significance
- Basic concepts
- Departments involved in hospitality management of an organization
- Scope

Chapter: Consumer Education and Protection

- Introduction
- Significance of consumer education and protection
- Basic concepts
 - Consumer product
 - Consumer behaviour
 - Consumer forum
 - Consumer footfalls
 - Consumer problems
 - Consumer rights
 - Standardized marks (ISI, Wool Mark, Hall Mark, Silk Mark)

- Protection Councils
- Consumer Responsibilities
- Scope

UNIT VI COMMUNICATION AND EXTENSION

Chapter: Development communication and Journalism

- Introduction
- Significance
- Basic concepts
 - Development
 - Development journalism
 - Development Communication
- Methods of communication
 - Campaign
 - Radio and television
 - Print media
 - Information and communication technologies
- Knowledge and skills required for a career in this field
- Scope and career avenues in development communication

CLASS XII HOME SCIENCE PRACTICALS

TERM I

UNIT II NUTRITION, FOOD SCIENCE AND TECHNOLOGY

1. Modification of normal diet to soft diet for elderly person.
2. Development and preparation of supplementary foods for nutrition programme.
3. Planning a menu for a school canteen or mid-day meal in school for a week.
4. Design, prepare and evaluate a processed food product.
5. Qualitative test for food adulteration in: pure ghee, tea leaves, whole black pepper, turmeric powder, milk, asafoetida.

UNIT III HUMAN DEVELOPMENT AND FAMILY STUDIES

6. Preparation and use of any one teaching aid to communicate socially relevant messages for children/ adolescents /adults in the community.

OR

Preparation of any one toy for children (age appropriate) using locally available and indigenous material

TERM II

UNIT IV FABRIC AND APPAREL

1. Preparation of any one article using applied textile design techniques; tie and dye/batik/block printing.
2. Remove different types of stains from white cotton cloth –Ball pen, curry, grease, ink, lipstick, tea and coffee.

UNIT V RESOURCE MANAGEMENT

3. Evaluate any one advertisement for any job position.
4. Develop a leaflet/pamphlet for Consumer Education and Protection on any one of the following-
 - a) Consumer Protection Act (CPA)
 - b) Consumer responsibilities
 - c) Consumer organization
 - d) Consumer Problems

PROJECT

ANY ONE OF THE FOLLOWING PROJECT MAY BE UNDERTAKEN AND EVALUATED-

1. Study of an integrated community based, nutrition/health programme being implemented in own area, with reference to-
 - a) Programme objectives
 - b) Focal Group/Beneficiaries
 - c) Modalities of implementation

2. Visit to the neighbouring areas and interview two adolescents and two adults regarding their perception of persons with special needs.

3. Profile any two person (child/adult) with special needs to find out their diet, clothing, activities, physical and psychological needs.

4. Planning any five messages for nutrition, health and life skills using different modes of communication for different focal groups.

5. Market survey any five processed foods with their packaging and label information.

**SCHEME FOR PRACTICAL EXAMINATION
CLASS XII HOME SCIENCE**

TERM I

1.	Project	5 Marks
2.	Modification of any one family meal for elderly person. Preparing any one of the modified dish. OR Development and preparation of any one supplementary food for pre-schooler (2-6 years) nutrition programme. OR Planning a menu for school canteen and preparing any one nutritious dish	5 Marks
3.	Identify adulterant using chemical test in any one of the following- pure ghee, tea leaves, whole black pepper, turmeric powder, milk, asafoetida.	2 Marks
4.	Viva	3 Marks
	TOTAL	15 MARKS

TERM II

1.	Prepare a sample using applied textile design techniques tie and dye/batik/block printing	4 Marks
2.	Remove any one of the stain from white cotton cloth – Ball pen, curry, grease, ink, lipstick, tea, coffee	2 Marks
3.	Develop a leaflet/pamphlet for Consumer Education and Protection on any one of the following- (5 marks) a) Consumer Protection Act (CPA) b) Consumer responsibilities c) Consumer organization d) Consumer Problems	4 Marks
4.	File	5 Marks
	TOTAL	15 MARKS

PHYSICAL EDUCATION (048)
DISTRIBUTION OF SYLLABUS – CLASS XII – 2021-2022
TERM - I AND TERM - II

TERM I – THEORY MCQ BASED - 35 MARKS		TERM II – THEORY SHORT/LONG ANSWER – 35 MARKS	
*Unit No.	Name	*Unit No.	Name
1	Planning in Sports <ul style="list-style-type: none"> <input type="checkbox"/> Meaning & Objectives Of Planning <input type="checkbox"/> Various Committees & its Responsibilities (pre; during & post) <input type="checkbox"/> Tournament – Knock-Out, League Or Round Robin & Combination <input type="checkbox"/> Procedure To Draw Fixtures – Knock-Out (Bye & Seeding) & League (Staircase & Cyclic) 	3	Yoga & Lifestyle <ul style="list-style-type: none"> <input type="checkbox"/> Asanas as preventive measures <input type="checkbox"/> Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana <input type="checkbox"/> Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana , Pavan Muktasana, Ardh Matsyendrasana <input type="checkbox"/> Asthma: Procedure, Benefits & contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana <input type="checkbox"/> Hypertension: Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Sharasana
2	Sports & Nutrition <ul style="list-style-type: none"> <input type="checkbox"/> Balanced Diet & Nutrition: Macro & Micro Nutrients <input type="checkbox"/> Nutritive & Non-Nutritive Components Of Diet <input type="checkbox"/> Eating For Weight Control – A Healthy Weight, The Pitfalls of Dieting, Food 	4	Physical Education & Sports for CWSN (Children with Special Needs - DIVYANG) <ul style="list-style-type: none"> <input type="checkbox"/> Concept of Disability & Disorder <input type="checkbox"/> Types of Disability, its causes & nature (cognitive disability, intellectual

	Intolerance & Food Myths		<p>disability, physical disability)</p> <ul style="list-style-type: none"> □ Types of Disorder, its cause & nature (ADHD, SPD, ASD, ODD, OCD) □ Disability Etiquettes □ Strategies to make Physical Activities assessable for children with special need.
5	Children & Women in Sports <ul style="list-style-type: none"> □ Motor development & factors affecting it □ Exercise Guidelines at different stages of growth & Development □ Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scoliosis and their corrective measures □ Sports participation of women in India 	7	Physiology & Injuries in Sports <ul style="list-style-type: none"> ● Physiological factor determining component of Physical Fitness ● Effect of exercise on Cardio Respiratory System ● Effect of exercise on Muscular System ● Sports injuries: Classification (Soft Tissue Injuries:(Abrasion, Contusion, Laceration, Incision, Sprain & Strain) Bone & Joint Injuries: (Dislocation, Fractures: Stress Fracture, Green Stick, Communated, Transverse Oblique & Impacted) Causes, Prevention& treatment ● First Aid – Aims & Objectives
6	Test & Measurement in Sports <ul style="list-style-type: none"> ○ Motor Fitness Test – 50 M Standing Start, 600 M Run/Walk, Sit & Reach, Partial Curl Up, Push Ups (Boys), Modified Push Ups (Girls), Standing Broad Jump, Agility – 4x10 M Shuttle Run ○ Measurement of Cardio Vascular Fitness – Harvard Step Test/Rockport Test - <p><u>Duration of the Exercise in Seconds</u> $\times 100$ 5.5 x Pulse count of 1-1.5 Min after Exercise</p>	9	Psychology & Sports <ul style="list-style-type: none"> ● Personality; its definition & types – Trait & Types (Sheldon & Jung Classification) & Big Five Theory ● Motivation, its type & techniques ● Meaning, Concept & Types of Aggressions in Sports

	<ul style="list-style-type: none"> ○ Rikli & Jones - Senior Citizen Fitness Test 		
8	Biomechanics & Sports <ul style="list-style-type: none"> ● Meaning and Importance of Biomechanics in Sports ● Types of movements (Flexion, Extension, Abduction & Adduction) ● Newton's Law of Motion & its application in sports 	10	Training in Sports <ul style="list-style-type: none"> ● Strength – Definition, types & methods of improving Strength – Isometric, Isotonic & Isokinetic ● Endurance - Definition, types & methods to develop Endurance – Continuous Training, Interval Training & Fartlek Training ● Speed – Definition, types & methods to develop Speed – Acceleration Run & Pace Run ● Flexibility – Definition, types & methods to improve flexibility ● Coordinative Abilities – Definition & types
TERM I – PRACTICAL		TERM II – PRACTICAL	
Project File (About one sport/game of choice)	05 Marks	Project File (Yoga and General Motor Fitness Test)	05 Marks
Demonstration of Fitness Activity	05 Marks	Demonstration of Fitness Activity/Yoga	05 Marks
Viva Voce (From Project File; Fitness)	05 Marks	Viva Voce (From Project File; General Motor Fitness; Yoga)	05 Marks

***For resource material refer Class XII Physical Education Handbook available at Board's Academic website: www.cbseacademic.nic.in**

Informatics Practices
CLASS XI
Code No. 065
2021-22

1. **Prerequisite** : None

2. **Learning Outcomes** :

At the end of this course, students will be able to:

- Identify the components of the Computer System.
- Create Python programs using different data types, lists and dictionaries.
- Explain database concepts and Relational Database Management Systems.
- Retrieve and manipulate data in RDBMS using Structured Query Language
- Identify the Emerging trends in the fields of Information Technology.

3. **Distribution of Marks and Periods**

Unit No	Unit Name	Marks	Periods	Periods	Total Period
			Theory	Practical	
1	Introduction to computer system	10	10	-	10
2	Introduction to Python	25	35	28	63
3	Database concepts and the Structured Query Language	30	23	17	40
4	Introduction to Emerging Trends	5	7	-	7
	Practical	30	-	-	-
	Total	100	75	45	120

TERM - 1

Distribution of Theory Marks

Unit No	Unit Name	Marks
1	Introduction to computer system	10
2	Introduction to Python	25
	Total	35

Unit Wise syllabus

Unit 1:

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.
- Software: purpose and types – system and application software, generic and specific purpose software.

Unit 2:

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.
- 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()
- 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()

Distribution of Practical Marks

Topic	Marks
Python program (pen and paper or Collab or any online idle or pyroid screen for mobile)	10
Practical File- 15 python Programs	3
Viva	2
Total	15

Suggested Practical List

Programming in Python

1. To find average and grade for given marks.

2. To find the sale price of an item with a 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 a given Cost and Sell Price.
6. To calculate EMI for Amount, Period and Interest.
7. To calculate tax - GST / Income Tax.
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 a given number.
12. To count the number of vowels in a user entered string.
13. To print the words starting with a particular alphabet in a user entered string.
14. To print the number of occurrences of a given alphabet in a given string.
15. Create a dictionary to store names of states and their capitals.
16. Create a dictionary of students to store names and marks obtained in 5 subjects.
17. To print the highest and lowest values in the dictionary.

TERM - 2

Distribution of Theory Marks

Unit No	Unit Name	Marks
3	Database concepts and the Structured Query Language	30
4	Introduction to Emerging Trends	5
	Total	35

Unit 3:

Database concepts and the Structured Query Language

- Database Concepts: Introduction to database concepts and its need, Database Management System. 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.
- 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
Data Manipulation Commands: INSERT, UPDATE, DELETE.

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.

Distribution of Practical Marks

Topic	Marks
SQL Queries (pen and paper)	8
Practical File SQL Queries - 20 Queries	4
Viva	3
Total	15

Suggested Practical List :

Data Management: SQL Commands

1. To create a database
2. To create a student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key.
3. To insert the details of at least 10 students in the above table.
4. To delete the details of a particular student in the above table.
5. To increase marks by 5% for those students who have Rno more than 20.
6. To display the entire content of the table.
7. To display Rno, Name and Marks of those students who are scoring marks more than 50.
8. To find the average of marks from the student table.
9. To find the number of students, who are from section 'A'.
10. To add a new column email in the above table with appropriate data type.
11. To add the email ids of each student in the previously created email column.
12. To display the information of all the students, whose name starts with 'AN' (Examples: ANAND, ANGAD,..)
13. To display Rno, Name, DOB of those students who are born between '2005- 01-01' and '2005-12-31'.
14. To display Rno, Name, DOB, Marks, Email of those male students in ascending order of their names.
15. To display Rno, Gender, Name, DOB, Marks, Email in descending order of their marks.
16. To display the unique section available in the table.

Reference:

NCERT Informatics Practices - Text book for class - XI (ISBN- 978-93-5292-148-5)

Informatics Practices
CLASS XII
Code No. 065
2021-2022

1. **Prerequisite:** Informatics Practices – Class XI

2. **Learning Outcomes**

At the end of this course, students will be able to:

- Create Series, Data frames and apply various operations.
- Visualize data using relevant graphs.
- Design SQL queries using aggregate functions.
- Learn terminology related to networking and the internet.
- Identify internet security issues and configure browser settings
- Understand the impact of technology on society including gender and disability issues.

3. **Distribution of Marks and Periods**

Unit No	Unit Name	Marks	Periods		Total Period
			Theory	Practical	
1	Data Handling using Pandas and Data Visualization	25	25	25	50
2	Database Query using SQL	25	20	17	37
3	Introduction to Computer Networks	10	12	0	12
4	Societal Impacts	10	14	-	14
	Project	-	-	7	7
	Practical	30	-	-	-
	Total	100	71	49	120

Term - 1

Distribution of Theory Marks

Unit No	Unit Name	Marks
1	Data Handling using Pandas and Data Visualization	25
4	Societal Impacts	10
	Total	35

Unit 1:

Data Handling using Pandas and Data Visualization

Data Handling using Pandas -I

- Introduction to Python libraries- Pandas, Matplotlib.
- Data structures in Pandas - Series and data frames. Series: Creation of series from 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 (insert /append) , select, delete (drop column and row), rename, Head and Tail functions, indexing using labels, Boolean indexing.

Data Visualization

- Data Visualization : Purpose of plotting, drawing and saving of plots using Matplotlib (line plot, bar graph, histogram). Customizing plots:: adding label, title, and legend in plots.

Unit 4:

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.

Distribution of Practical Marks

Topic	Marks
Pandas program (pen and paper or Collab or any online idle or pyroid screen for mobile)	8
Practical File 15 Pandas Programs	3
Project synopsis	2
Viva	2
Total	15

Suggested Practical List

Data Handling

1. Create a panda's series from a dictionary of values and a ndarray
2. Given a Series, print all the elements that are above the 75th percentile.
3. 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.
4. Create a data frame for examination result and display row labels, column labels data types of each column and the dimensions
5. Filter out rows based on different criteria such as duplicate rows.
6. Importing and exporting data between pandas and CSV file

5.2 Visualization

1. Given the school result data, analyses the performance of the students on different parameters, e.g subject wise or class wise.
2. For the Data frames created above, analyze, and plot appropriate charts with title and legend.
3. 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.

Project Synopsis

The synopsis should cover the brief description about the project along with reasons for selection of the dataset. The learner should write the source of the dataset whether created or taken from any reliable source. The learner should write what analytics can be done on the project.

Term - 2

Distribution of Theory Marks

Unit No	Unit Name	Marks
2	Database Query using SQL	25
3	Introduction to Computer Networks	10
	Total	35

Unit 2:

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.

Unit 3:

Introduction to Computer Networks

- Introduction to networks, Types of network: 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.

Distribution of Practical Marks

Topic	Marks
SQL queries (pen and paper)	7
Practical File – 12 SQL Queries	2
Final Project Submission	3
Viva	3
Total	15

Suggested Practical List

Data Management

1. Create a student table with the student id, name, and marks as attributes where the student id is the primary key.
2. Insert the details of a new student in the above table.
3. Delete the details of a student in the above table.
4. Use the select command to get the details of the students with marks more than 80.
5. Find the min, max, sum, and average of the marks in a student marks table.
6. 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.

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.

MATHEMATICS (XI-XII)
(Code No. 041)
Session – 2021-22

The Syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of the society. Senior Secondary stage is a launching stage from where the students go either for higher academic education in Mathematics or for professional courses like Engineering, Physical and Biological science, Commerce or Computer Applications. The present revised syllabus has been designed in accordance with National Curriculum Framework 2005 and as per guidelines given in Focus Group on Teaching of Mathematics 2005 which is to meet the emerging needs of all categories of students. Motivating the topics from real life situations and other subject areas, greater emphasis has been laid on application of various concepts.

Objectives

The broad objectives of teaching Mathematics at senior school stage intend to help the students:

- to acquire knowledge and critical understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles, symbols and mastery of underlying processes and skills.
- to feel the flow of reasons while proving a result or solving a problem.
- to apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method.
- to develop positive attitude to think, analyze and articulate logically.
- to develop interest in the subject by participating in related competitions.
- to acquaint students with different aspects of Mathematics used in daily life.
- to develop an interest in students to study Mathematics as a discipline.
- to develop awareness of the need for national integration, protection of environment, observance of small family norms, removal of social barriers, elimination of gender biases.
- to develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics.

COURSE STRUCTURE
CLASS XI (2021-22)
TERM - I

One Paper

90 Minutes

Max Marks: 40

No.	Units	Marks
I.	Sets and Functions	11
II.	Algebra	13
III.	Coordinate Geometry	6
IV.	Calculus	4
V.	Statistics and Probability	6
	Total	40
	Internal Assessment	10
	Total	50

*No chapter-wise weightage. Care to be taken to cover all the chapters.

Unit-I: Sets and Functions

1. Sets

Sets and their representations. Empty set. Finite and Infinite sets. Equal sets. Subsets. Subsets of a set of real numbers especially intervals (with notations). Power set. Universal set. Venn diagrams. Union and Intersection of sets.

2. Relations & Functions

Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself ($R \times R$ only). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs.

Unit-II: Algebra

1. Complex Numbers and Quadratic Equations

Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane. Statement of Fundamental Theorem of Algebra, solution of quadratic equations (with real coefficients) in the complex number system.

2. Sequence and Series

Sequence and Series. Arithmetic Progression (A. P.). Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.

Unit-III: Coordinate Geometry

1. Straight Lines

Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form and normal form. General equation of a line. Distance of a point from a line.

Unit-IV: Calculus

1. Limits

Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions

Unit-V: Statistics and Probability

1. Statistics

Measures of Dispersion: Range, mean deviation, variance and standard deviation of ungrouped/grouped data.

INTERNAL ASSESSMENT	10 MARKS
Periodic Test	5 Marks
Mathematics Activities: Activity file record +Term end assessment of one activity & Viva	5 Marks

Note: For activities NCERT Lab Manual may be referred

TERM - II

One Paper

Max Marks: 40

No.	Units	Marks
I.	Sets and Functions (Cont.)	8
II.	Algebra (Cont.)	11
III.	Coordinate Geometry (Cont.)	9
IV.	Calculus (Cont.)	6
V.	Statistics and Probability (Cont.)	6
	Total	40
	Internal Assessment	10
	Total	50

Unit-I: Sets and Functions

1. Trigonometric Functions

Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $\sin^2 x + \cos^2 x = 1$, for all x . Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing $\sin(x \pm y)$ and $\cos(x \pm y)$ in terms of $\sin x$, $\sin y$, $\cos x$ & $\cos y$ and their simple applications. Deducing identities like the following:

$$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}, \cot(x \pm y) = \frac{\cot x \cot y \mp 1}{\cot y \pm \cot x}$$

$$\sin \alpha \pm \sin \beta = 2 \sin \frac{1}{2}(\alpha \pm \beta) \cos \frac{1}{2}(\alpha \mp \beta)$$

$$\cos \alpha + \cos \beta = 2 \cos \frac{1}{2}(\alpha + \beta) \cos \frac{1}{2}(\alpha - \beta)$$

$$\cos \alpha - \cos \beta = -2 \sin \frac{1}{2}(\alpha + \beta) \sin \frac{1}{2}(\alpha - \beta)$$

Identities related to $\sin 2x$, $\cos 2x$, $\tan 2x$, $\sin 3x$, $\cos 3x$ and $\tan 3x$.

Unit-II: Algebra

1. Linear Inequalities

Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line. Graphical solution of linear inequalities in two variables. Graphical method of finding a solution of system of linear inequalities in two variables.

2. Permutations and Combinations

Fundamental principle of counting. Factorial n . $(n!)$ Permutations and combinations, formula for ${}^n P_r$ and ${}^n C_r$, simple applications.

Unit-III: Coordinate Geometry

1. Conic Sections

Sections of a cone: circles, ellipse, parabola, hyperbola. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.

2. Introduction to Three-dimensional Geometry

Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points and section formula.

Unit-IV: Calculus

1. Derivatives

Derivative introduced as rate of change both as that of distance function and geometrically. Definition of Derivative, relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.

Unit-V: Statistics and Probability

1. Probability

Random experiments; outcomes, sample spaces (set representation). Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Probability of an event, probability of 'not', 'and' and 'or' events.

INTERNAL ASSESSMENT	10 MARKS
Periodic Test	5 Marks
Mathematics Activities: Activity file record +Term end assessment of one activity & Viva	5 Marks

Note: For activities NCERT Lab Manual may be referred

- Please refer the guidelines given under XII Mathematics Syllabus:

CLASS-XII
MATHEMATICS (2021-22)
TERM - I

One Paper

90 minutes

Max Marks: 40

No.	Units	Marks
I.	Relations and Functions	08
II.	Algebra	10
III.	Calculus	17
V.	Linear Programming	05
	Total	40
	Internal Assessment	10
	Total	50

Unit-I: Relations and Functions

1. Relations and Functions

Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.

2. Inverse Trigonometric Functions

Definition, range, domain, principal value branch.

Unit-II: Algebra

1. Matrices

Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operation on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non-commutativity of multiplication of matrices, Invertible matrices; (Here all matrices will have real entries).

2. Determinants

Determinant of a square matrix (up to 3×3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.

Unit-III: Calculus

1. Continuity and Differentiability

Continuity and differentiability, derivative of composite functions, chain rule, derivative of inverse trigonometric functions, derivative of implicit functions. Concept of exponential and logarithmic functions.

Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives.

2. Applications of Derivatives

Applications of derivatives: increasing/decreasing functions, tangents and normals, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real-life situations).

Unit-V: Linear Programming

1. Linear Programming

Introduction, related terminology such as constraints, objective function, optimization, different types of linear programming (L.P.) problems. Graphical method of solution for problems in two variables, feasible and infeasible regions (bounded), feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).

INTERNAL ASSESSMENT	10 MARKS
Periodic Test	5 Marks
Mathematics Activities: Activity file record +Term end assessment of one activity & Viva	5 Marks

Note: For activities NCERT Lab Manual may be referred

TERM - II

One Paper

Max Marks: 40

No.	Units	Marks
III.	Calculus	18
IV.	Vectors and Three-Dimensional Geometry	14
VI.	Probability	8
	Total	40
	Internal Assessment	10
	Total	50

Unit-III: Calculus

1. Integrals

Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, Evaluation of simple integrals of the following types and problems based on them.

$$\int \frac{dx}{x^2 \pm a^2}, \int \frac{dx}{\sqrt{x^2 \pm a^2}}, \int \frac{dx}{\sqrt{a^2 - x^2}}, \int \frac{dx}{ax^2 + bx + c}, \int \frac{dx}{\sqrt{ax^2 + bx + c}}$$
$$\int \frac{px + q}{ax^2 + bx + c} dx, \int \frac{px + q}{\sqrt{ax^2 + bx + c}} dx, \int \sqrt{a^2 \pm x^2} dx, \int \sqrt{x^2 - a^2} dx$$

Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals.

2. Applications of the Integrals

Applications in finding the area under simple curves, especially lines, parabolas; area of circles /ellipses (in standard form only) (the region should be clearly identifiable).

3. Differential Equations

Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree of the type: $\frac{dy}{dx} = f(y/x)$. Solutions of linear differential equation of the type:

$$\frac{dy}{dx} + py = q, \text{ where } p \text{ and } q \text{ are functions of } x \text{ or constant.}$$

Unit-IV: Vectors and Three-Dimensional Geometry

1. Vectors

Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors.

2. Three - dimensional Geometry

Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, coplanar and skew lines, shortest distance between two lines. Cartesian and vector equation of a plane. Distance of a point from a plane.

Unit-VI: Probability

1. Probability

Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its probability distribution.

INTERNAL ASSESSMENT	10 MARKS
Periodic Test	5 Marks
Mathematics Activities: Activity file record +Term end assessment of one activity & Viva	5 Marks

Note: For activities NCERT Lab Manual may be referred

Assessment of Activity Work:

In first term any 4 activities and in second term any 4 activities shall be performed by the student from the activities given in the NCERT Laboratory Manual for the respective class (XI or XII) which is available on the link : <http://www.ncert.nic.in/exemplar/labmanuals.html> a record of the same may be kept by the student. A term end test on the activity is to be conducted.

The weightage are as under:

- The activities performed by the student in each term and record keeping : 3 marks
- Assessment of the activity performed during the term end test and Viva-voce : 2 marks

Prescribed Books:

- 1) Mathematics Textbook for Class XI, NCERT Publications
- 2) Mathematics Part I - Textbook for Class XII, NCERT Publication
- 3) Mathematics Part II - Textbook for Class XII, NCERT Publication
- 4) Mathematics Exemplar Problem for Class XI, Published by NCERT
- 5) Mathematics Exemplar Problem for Class XII, Published by NCERT
- 6) Mathematics Lab Manual class XI, published by NCERT
- 7) Mathematics Lab Manual class XII, published by NCERT