

**PUNJAB TECHNICAL UNIVERSITY
KAPURTHALA**

**Scheme and Syllabus
of
Bachelor in E-Commerce**

Batch 2014 onwards

**By
Board of Studies Management/Commerce/Business
Economics**

Course Code	Course Name	Load Allocation		Marks Distribution		Total Marks	Credits
		L	T	Internal	External		
Semester I							
BCOP 101	Financial Accounting	4	0	40	60	100	4
BCOP 102	Business Organization & Management	4	0	40	60	100	4
BCOP 103	Micro Economics	4	0	40	60	100	4
BCOP 104	Business Mathematics	4	0	40	60	100	4
BCOP 105	Communicative English	4	0	40	60	100	4
HVPE 101	Human Values and Professional Ethics	3	0	40	60	100	3
Total		23	0	240	360	600	23
Semester II							
BCOP 201	Advanced Accounting	4	0	40	60	100	4
BCOP 202	Mercantile Law	4	0	40	60	100	4
BCOP 203	Macro Economics	4	0	40	60	100	4
BCOP 204	Business Statistics	4	0	40	60	100	4
BCOP 205	Business Communication	4	0	40	60	100	4
BCOP 206	Workshop on IT & E-Commerce	2	2	40	60	100	3
Total		22	2	240	360	600	23

First Semester

BCOP 101 Financial Accounting

Objective/s: To familiarize the students with the basic fundamentals of the accounting and understand the accounting mechanism necessary for the preparation of the financial statements.

Unit I

Basics of Accounting: Accounting, Accountancy and Book-Keeping. Accounting Concepts, conventions and Principles-GAAP. Branches of accounting. Accounting equation. Accounting Cycle: Journal, Ledger and Trial Balance; Subsidiary books

Unit II

Rectification of errors. Bank reconciliation statement. Bills of exchange. Promissory notes

Unit III

Depreciation- Fixed Instalment Method and Diminishing Balance Method (Numerical); Provisions and Reserves. Final Accounts with simple adjustments (Excluding the adjustments of bad debts etc.)

Unit IV

Average due date. Account current. Self balancing ledgers

Suggested Readings/ Books:

- **Financial Accounting** : Sehgal, Ashok & Deepak (Latest Edition Taxman's Allied Services)
- **Financial Accounting**: Maheshwari, S. N. (Latest Edition Vikas Publishing House)
- **Financial Accounting**: Tulsian, P. C. (Latest Edition Pearson Publications)

BCOP 102 Business Organization & Management

Objective/s: To facilitate the students in appreciating need/ significance and applications of various managerial functions

Unit I

Definition of management: nature and scope, organizational objectives. Forms of different organizations: Sole Proprietorship, Partnership and Joint Stock Company. Development of management thoughts: Classical and new classical systems, contingency approaches. Scientific Management. Social responsibility and business ethics

Unit II

Planning: Nature, Purpose and Functions, Types, Steps in planning. Decision making and its process. **Organizing:** Nature, Importance, Process, Formal & Informal organizations, Organization chart, Organizing principles, Span of management, Departments by function, Territory, Product/service, Customer group and Matrix organization. **Authority:** Definition, Types, Responsibility and Accountability, Delegation, Decentralization v/s Centralization, Determinants of effective decentralization

Unit III

Staffing: Recruitment, Selection, Training, Induction, Performance Management, Manpower management, Factors affecting staffing, job design Teamwork: Stages of Team Building. **Directing:**

Motivation: Theories – Maslow, Herzberg, McGregor & Ouchi, and Leadership –Styles, Managerial Grid, Nine Cell Matrix.

Unit IV

Controlling: control process, types, barriers to control making, control techniques: budget and non-budgetary control devices. Introduction to TQM Introduction to Management by objective

Suggested Readings/ Books:

- **Principles of Management:** Ghuman & Ashwathapa (Tata McGraw Hill Publishers)
- **Essentials of Management:** Koontz & Weirich (Tata McGraw Hill Publishers)
- **Principles & Practices of Management:** L.M. Prasad (S. Chand Publishers)
- **Management:** Stephen Robbins (Pearson Publishers)

BCOP 103 Micro Economics

Objective/s: To explore the students with the basic principles of economics that help them in making logical decisions.

Unit I

Introduction to Economics: Nature and Scope of Economics: Micro and Macro Economics. Types of Economies and Market Structures. Basic problems of an economy; Working of price mechanism. **Utility:** Utility approach – brief outline of law of diminishing marginal utility and law of equi- marginal utility. Indifference curve approach. Properties of indifference curve. Consumer's equilibrium and importance of indifference curve approach

Unit II

Elasticity of Demand: Concept and measurement of elasticity of demand; Price, income and cross elasticity; Relationship between average revenue, marginal revenue and elasticity of demand; Determinants of elasticity of demand; Importance of elasticity of demand. **Production Function:** Concept of production function; Law of variable proportions; Iso-quants; Producer's equilibrium. Expansion path; Returns to factor and returns to scale **Theory of Costs:** Types of costs, Short-run and long-run cost curves traditional and modern approaches. Internal and external economies and diseconomies of scale

Unit III

Introduction: Market structure, types of markets and business decisions; Objectives of a business firm- optimum firm. **Perfect Competition:** Characteristics; Price determination under perfect competition, Equilibrium of firm and industry in the Short-run and long-run. **Monopoly:** Characteristics; Equilibrium of the monopoly firm in short run and long run; Price discrimination, its types and price and output determination under discriminating monopoly. **Monopolistic Competition:** Meaning and characteristics; Price and output determination under monopolistic competition; Selling costs; Comparison with perfect competition; Excess capacity hypothesis. **Oligopoly;** Characteristics; Models of pricing and output determination; Price leadership; Kinked demand curve.

Unit IV

Factor Pricing: Marginal productivity theory of factor pricing, Classical and modern theory of wage determination. Rent-concept; Ricardian and modern theories of rent; Quasi-rent. Interest-Concept and theories of interest; Profit: nature, concepts and theories of profit.

Suggested Readings/ Books:

- **Modern Microeconomics:** Koutsoyiannis A, (Macmillan New Delhi).
 - **Advanced Economic Theory:** Ahuja H.L (S. Chand & Co., New Delhi)
 - **Principles of Economics:** Mankiw N.G., Thomson.
 - **Business Economics:** Ferguson P.R. and Rothschild R. and Ferguson G.J. (Macmillan Hampshire).
 - **Micro Economic Theory:** Jhingan M.L. (Vrinda Publications.)
 - **Micro Economics:** Seth M. L.
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BCOP 104 Business Mathematics

Objective/s: The course consists of instruction in the fundamentals of mathematics as applied to business situations. The course includes the study of fundamental mathematics and calculations which are commonly used in finance and accounting.

Unit-I

Progressions: Application of Arithmetic Progression and Geometric Progression. Arithmetic progressions finding the 'n'th term of an AP and also sum to 'n' terms of an AP. Insertion of Arithmetic means in given terms of AP and representation of AP. Geometric progression: finding nth term of GP.

Unit-II

Interest Applications: Simple interest, compound interest including half yearly and quarterly calculation, Instalment Purchases (Cost of Instalment, Effective rates, amortization of a loan)

Unit-III

Percentage and Ratios' Applications: Percents, Commissions, Discounts, e.g., bill discounting, mark up and concepts of Ratios.

Unit-IV

Corporate and Special Applications: Computation of the costs and proceeds of stock buy-and-sell; Computation of rates of yield and gains or losses on the purchase and sale of stocks; Computation of gains and losses on convertible and callable bonds, annual interest, accrued interest, and annual yield and computation of a rate of yield to maturity

Unit-V

Foreign Exchange: Brief Introduction to Foreign Exchange Market, Rate of Exchange, Direct/Cross rate and Indirect rate of Exchange, Cross rate, Simple and Compound Conversion, Chain Rule (in the course of exchange)

Suggested Readings/ Books:

- **Business Mathematics and Statistics (Quantitative Techniques for Business):** T R Jain, S C Aggarwal, N Ranade and S K Khurana, (V K (India) Enterprises, New Delhi)
 - **A textbook of Business Mathematics:** Dr. A. K Arte & R.V. Prabhakar
 - **Business Mathematics:** Sanchethi and Kapoor
 - **Mathematics for Cost Accountants:** Saha
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BTHU 101 Communicative English

Objective/s and Expected outcome:

The objective is to help the students to become independent users of English language. Students should be able to understand spoken and written English language of varied complexity on most including some abstract topics; particularly the language of their chosen technical field. They must show awareness of appropriate format and a capacity for explaining their views in a rational manner. The students should be able to converse fluently, without strain with international speakers of English in an accent and lexis that is widely understood across the globe. They will be able to produce on their own texts which are clear and coherent.

- 1. Reading:** Reading texts of varied complexity; speed reading for global and detailed meaning; processing factual and implied meanings
- 2. Writing:** The qualities of good writing; Learning the prescribed written expressions of conventional use; writing business letters, emails; reports, summaries and various forms of descriptive and argumentative essays

Learning and Teaching Activities:

PART A (Reading)

The prescribed reading textbook for students will be S. P. Dhanavel English and Communication Skills for Students of Science and Engineering (with audio CD), Orient Blackswan. They will go through the reading texts themselves with the help of a dictionary or word power as given at the end. As they progress from one reading to another they should learn to read fast with greater degree of understanding of both concrete and abstract topics. While taking up the textbook lessons in the classroom, the teacher shall ensure that students can do the following:

- i.** Identify the significant points and conclusions as given in the text.
- ii.** Handle large texts (even outside the prescribed book) with overall comprehension of the links between arguments and the finer distinction between stated and implied meanings.
- iii.** Generally read the stance or the point of view of the writer and present it in the form of a summary
- iv.** Use the vocabulary learnt in the lessons (especially given in 'word power') productively in various writing tasks as suggested at the end of each lesson.
- v.** Profitably use the grammatical items as discussed at the end of each lesson while producing language for communication.

Besides the textbook, the teacher must insist that students extend their reading by taking up additional texts of their own choice.

PART B (Writing)

In addition to the various exercises given at the end of each lesson of Dhanavel's book, the teacher shall use Anne Laws Writing Skills, Orient Blackswan to teach the language and

conventions of writing. The students must learn the language that expresses various cognitive functions that are frequently used in writing. With the help of the teacher who will give them adequate practice, the students should be able to:

- i. Convey information on concrete or abstract topics with clarity and precision.
- ii. Write about objects or events with appropriate detail in both descriptive and narrative form.
- iii. Explain ideas and build up arguments with adequate support in a convincing manner.
- iv. Use language with some degree of flexibility in consideration to the reader.
- v. Produce effectively such forms of professional writing as business letter, emails, notes, memos, reports summaries etc.

While teaching, the teacher must inculcate in students the habit of revising their writing. The teacher can also use and recommend the relevant sections of the following books for developing writing skills in students.

Suggested Readings/ Books

1. Vandana R Singh, **The Written Word**, Oxford University Press, New Delhi
2. KK Ramchandran, et al **Business Communication**, Macmillan, New Delhi
3. Swati Samantaray, **Business Communication and Communicative English**, Sultan Chand, New Delhi.
4. **S.P. Dhanavel English and Communication Skills for Students of Science and Engineering** (with audio CD)

HVPE 101 Human Values & Professional Ethics

Objective/s and Expected outcome:

To help the students to discriminate between valuable and superficial in the life. To help develop the critical ability to distinguish between essence and form, or between what is of value and what is superficial, in life - this ability is to be developed not for a narrow area or field of study, but for everyday situations in life, covering the widest possible canvas. To help students develop sensitivity and awareness; leading to commitment and courage to act on their own belief. It is not sufficient to develop the discrimination ability, it is important to act on such discrimination in a given situation. Knowingly or unknowingly, our education system has focused on the skill aspects (learning and doing) - it concentrates on providing to its students the skills to do things. In other words, it concentrates on providing "How to do" things. The aspects of understanding "What to do" or "Why something should be done" is assumed. No significant cogent material on understanding is included as a part of the curriculum. A result of this is the production of graduates who tend to join into a blind race for wealth, position and jobs. Often it leads to misuse of the skills; and confusion and wealth that breeds chaos in family, problems in society, and imbalance in nature. This course is an effort to fulfill our responsibility to provide our students this significant input about understanding. This course encourages students to discover what they consider valuable.

Accordingly, they should be able to discriminate between valuable and the superficial in real situations in their life. It has been experimented at IITH, IITK and UPTU on a large scale with significant results.

PART A

1. Course Introduction - Need, Basic Guidelines, Content and Process for Value Education

- Understanding the need, basic guidelines, content and process for Value Education.
- Self Exploration–what is it?- its content and process; ‘Natural Acceptance’ and Experiential Validation- as the mechanism for self exploration.
- Continuous Happiness and Prosperity- A look at basic Human Aspirations
- Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority
- Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
- Method to fulfill the above human aspirations: understanding and living in **harmony** at various levels

(6 Hrs)

2. Understanding Harmony in the Human Being - Harmony in Myself!

- Understanding human being as a co-existence of the sentient ‘I’ and the material ‘Body’
- Understanding the needs of Self (‘I’) and ‘Body’ - *Sukh* and *Suvidha*
- Understanding the Body as an instrument of ‘I’ (I being the doer, seer and enjoyer)
- Understanding the characteristics and activities of ‘I’ and harmony in ‘I’
- Understanding the harmony of I with the Body: *Sanyam* and *Swasthya*; correct appraisal of Physical needs, meaning of Prosperity in detail
- Programs to ensure *Sanyam* and *Swasthya*

(6 Hrs)

3. Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

- Understanding harmony in the Family- the basic unit of human interaction
- Understanding values in human-human relationship; meaning of *Nyaya* and program for its fulfillment to ensure *Ubhay-tripti*; Trust (*Vishwas*) and Respect (*Samman*) as the foundational values of relationship
- Understanding the meaning of *Vishwas*; Difference between intention and competence
- Understanding the meaning of *Samman*, Difference between respect and differentiation; the other salient values in relationship
- Understanding the harmony in the society (society being an extension of family): *Samadhan*, *Samridhi*, *Abhay*, *Sah-astitva* as comprehensive Human Goals
- Visualizing a universal harmonious order in society- Undivided Society (*Akhand Samaj*), Universal Order (*Sarvabhaum Vyawastha*)- from family to world family!

(6 Hrs.)

PART B

4. Understanding Harmony in the Nature and Existence - Whole existence as Co-existence

- Understanding the harmony in the Nature
- Interconnectedness and mutual fulfillment among the four orders of nature- recyclability and self-regulation in nature
- Understanding Existence as Co-existence (*Sah-astitva*) of mutually interacting units in all-pervasive space
- Holistic perception of harmony at all levels of existence (4 Hrs)

5. Implications of the above Holistic Understanding of Harmony on Professional Ethics

- Natural acceptance of human values
- Definitiveness of Ethical Human Conduct
- Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
- Competence in professional ethics:
 - Ability to utilize the professional competence for augmenting universal human order
 - Ability to identify the scope and characteristics of people-friendly and eco-friendly production systems
 - Ability to identify and develop appropriate technologies and management patterns for above production systems.
- Case studies of typical holistic technologies, management models and production systems
- Strategy for transition from the present state to Universal Human Order:
 - At the level of individual: as socially and ecologically responsible engineers, technologists and managers
 - At the level of society: as mutually enriching institutions and organizations

(6 Hrs.)

Text Book:

1. R R Gaur, R Sangal, G P Bagaria, 2009, *A Foundation Course in Value Education*.

Other Suggested Readings / Books:

1. Ivan Illich, 1974, *Energy & Equity*, The Trinity Press, Worcester, and HarperCollins, USA
2. E.F. Schumacher, 1973, *Small is Beautiful: a study of economics as if people mattered*, Blond & Briggs, Britain.
3. A Nagraj, 1998, *Jeevan Vidya ek Parichay*, Divya Path Sansthan, Amarkantak.
4. Sussan George, 1976, *How the Other Half Dies*, Penguin Press. Reprinted 1986, 1991
5. PL Dhar, RR Gaur, 1990, *Science and Humanism*, Commonwealth Purblishers.
6. A.N. Tripathy, 2003, *Human Values*, New Age International Publishers
7. Subhas Palekar, 2000, *How to practice Natural Farming*, Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
8. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, *Limits to Growth – Club of Rome's report*, Universe Books.

9. E G Seebauer & Robert L. Berry, 2000, *Fundamentals of Ethics for Scientists & Engineers*, Oxford University Press
 10. M Govindrajran, S Natrajan & V.S. Senthil Kumar, *Engineering Ethics (including Human Values)*, Eastern Economy Edition, Prentice Hall of India Ltd
 11. B P Banerjee, 2005, *Foundations of Ethics and Management*, Excel Books.
 12. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.
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SECOND SEMESTER

BCOP 201 ADVANCED ACCOUNTING

OBJECTIVE AND EXPECTED OUTCOME OF THE COURSE:

This course would impart knowledge to the students regarding the application of accounting principles in different situations

PART-A

UNIT I (12 Hrs.)

Single Entry System, Accounts of Non- Profit Organizations; Insolvency Accounts

UNIT II (12 Hrs.)

Royalty Accounts, Hire Purchase and installment system; Consignment and Joint-Venture

PART-B

UNIT III (12 Hrs.)

Partnership Accounts: Fixed and Fluctuating Capitals; Interest on Capital; Interest on Drawing; Past Adjustments and Guarantee.

UNIT IV (12 Hrs.)

Partnership Accounts: Admission, retirement and death of a partner; Dissolution of a partnership firm (excluding Garner v/s Murray, Gradual Realization and Piecemeal Distribution)

SUGGESTED READINGS/BOOKS:

1. **Financial Accounting:** Sehgal, Ashok & Deepak (Taxman's Allied Services)
2. **Financial Accounting:** Maheshwari, S. N. (Vikas Publishing House)
3. **Financial Accounting:** Tulsian, P. C. (Pearson)

BCOP 202 MERCANTILE LAW

OBJECTIVE AND EXPECTED OUTCOME OF THE COURSE:

This course would help the students in gaining knowledge of basic laws governing the business.

PART-A

UNIT I (12 Hrs.) Law

of Contract: Definition and nature and types of a contract. Offer and Acceptance. Consideration, free consent, and capacity of parties. Legality of Object. Performance and discharge of Contract. Remedies for Breach of Contract.

UNIT II (12 Hrs.)

Introduction to Agency, Bailment, Pledge, Guarantee

PART-B

UNIT III (12 Hrs.) Law

of Sale of Goods: Definition of Sales, essentials for contract of sale. Meaning of conditions and warranties. Implied warranties – Caveat Emptor. Transfer of Ownership. Rights of Unpaid seller and other remedial measures.

UNIT IV (12 Hrs.)

Negotiable Instruments Act: Definition of Negotiable Instrument. Promissory note, Bill of Exchange and cheques. Parties to negotiable instrument. Discharge of parties from liability.

Consumer Protection Act 1986

SUGGESTED READINGS/BOOKS:

1. **Mercantile Law 7 Ed:** Chawla, Garg, and Sareen (Kalyani Publications)
2. **Elements of Mercantile Law:** N.D. Kapoor (Sultan Chand and Sons)

BCOP 203 Macro Economics

Objectives: This course is to help the students to make them understand the macroeconomics forces and their influence on business and economy.

PART-A

UNIT I

(12 Hrs.)

- **Classical Theory of Employment:** Say's Law of Market
- **Keynesian Theory of Employment**
- **National Income:** Concept and Constituents, measurement, difficulties and importance

UNIT II

(12 Hrs.)

- Consumption Function, Psychological Law of Consumption Function
- Investment : Types, Factors, Determining Investment
- Multiplier: Static and Dynamic, Limitations, Leakages and Importance

PART -B

UNIT III

(12Hrs.)

- Marginal efficiency of Capital, prospective yield, determinants and importance
- Trade Cycle : Theories, Measures to control trade cycles

UNIT IV

(12 Hrs.)

- **Monetary Policy:** Constituents, objectives and role in economic development
- **Fiscal Policy:** Constituents, objectives and role in economic development
- **Inflation:** Types, stagflation (Philip's curve), Theories of Demand Pull and Cost Push inflation causes, effects and measures to control inflation.

SUGGESTED READINGS/BOOKS:

1. **Modern Microeconomics:** Koutsoyiannis A.; Macmillan New Delhi.
2. **Advance Economic Theory:** Ahuja H.L.; S.Chand & Co., New Dehli.
3. **Principles of Economics:** Mankiw N.G., Thomson.
4. **Business Economics:** Ferguson P.R. and Rothschild R. and Ferguson G.J.; Macmillan, Hampshire .
5. **Micro Economic Theory** Jhingan M.L.; Vrinda Publications.
6. **Micro Economics:** Seth M.L.

BCOP 204 BUSINESS STATISTICS

OBJECTIVE AND EXPECTED OUTCOME OF THE COURSE:

This course would sharpen the analytical skills of the students to the data effectively.

PART-A

UNIT I (12 Hrs.)

Introduction: Definition, scope, functions and limitations of Statistics; Statistical Data: Meaning and types, Collection, classification and presentation of data.

UNIT II (12 Hrs.)

Analysis of Data: Construction of a frequency distribution; concept of central tendency-mean, median, mode, geometric mean and harmonic mean.

Dispersion- measures of dispersion, Lorenz Curve; Moments; Measures of Skewness and Kurtosis.

PART-B

UNIT III (12 Hrs.)

Correlation –Types of Correlation, measurement of correlation (Karl Pearson's and Rank Correlation Method)

Simple Regression –meaning and regression equations. Relationship between correlation and regression

UNIT IV (12 Hrs)

Analysis of Time series-Components of a time series. Importance of Time Series, Methods of measurement of trend, semi average method, moving average method and method of least square.

SUGGESTED READINGS/BOOKS:

1. **Statistics (Theory, Methods & Application):** Sancheti, D.C. and Kapoor V.K.; Sultan Chand & Sons, Delhi, 2000.
2. **Introduction to Statistics:** Hooda, R.P., Macmillan, New Delhi, 2002.
3. **Statistics for Business and Economics,** Hooda, R.P., Macmillan, New Delhi, 1999.
4. **Basic Statistics for Economists:** Aggarwal S.C. & Rana R.K.V.K. India.
5. **Statistics for Management,** Lewin and Rubin; Prentice-Hall of India, New Delhi, 2000.
6. **Basic Statistics for Business and Economics,** Hoel & J Assen; John Wiley and Sons, New York, 1992.

BCOP 205 BUSINESS COMMUNICATIONS

OBJECTIVE AND EXPECTED OUTCOME OF THE COURSE:

This subject is to help the students in developing and improving their communication skills to sustain in the competitive era.

PART-A

UNIT I

Business Communication – meaning & importance. Defining Communication, Purpose, Process, elements, difficulties in communication, and conditions for successful communication.

Basic forms of Communication, Barriers to effective communication, basic models & communication, 7C's of for effective business communication

UNIT II

Organizational Communication: Importance of communication in management, Formal and Informal Communication, Grapevine and how to handle it. Developing positive personal attitudes, Communication training for managers, Communication structure in an organization, Corporate Communication, PR skills

PART-B

UNIT III

Presentation Skills: Presentation on any chosen topic, oral presentations, principles of oral presentations, factors affecting presentations, sales presentation.

UNIT IV

Business Etiquette: Understanding etiquette, Cross-cultural etiquette, Business manners, Business to business etiquette.

Effective customer care.

SUGGESTED READINGS/BOOKS:

1. **Business Communication:** Chaturvedi, P.D.; Chaturvedi, Mukesh, Pearson Education

BCOP 206 WORKSHOP OF IT AND E-COMMERCE

OBJECTIVE AND EXPECTED OUTCOME OF THE COURSE:

The objective of the paper is to acquaint the students with various IT Applications useful in the business.

UNIT I

Internet Access:

- Introduction to www, internet and intranet
- Creation of e-mail address
- Send and receive messages
- Use of search engines
- Delivering information with Microsoft Mail
- Use of MS-Outlook/ Outlook Express

UNIT II

Communication: The Electronic Web; Network Application: voice, information services, Internet Chat, Group chat, Voice over Internet Protocol: voice conference, Video conferencing. Computer Network & Communication: Network types, Network topologies, Network Communication Devices, Physical Communication Media, Network Protocol (TCP/IP).

UNIT III

Application of IT: Business, Educational, Decision Support System, Inventory, etc.

Introduction to ERP, CRM, SAP, DBMS, SPSS.

Internet : Different application of internet for Business.

E-commerce and its models.

UNIT IV

Basic Concepts: Entities & their attributes, advantages & disadvantages of DBMS.

Introduction to RDBMS

Data Models: The hierarchical model, the network model & the relational model.

Data Protection: Recovery, concurrency, security & integrity.

SUGGESTED READINGS/BOOKS:

1. **Computer Fundamentals** by P.K. Sinha
2. **Introduction to Database Management:** Naveen Prakash
3. **Internet for Everyone:** Leon & Leon
4. **MS Office XP for Everyone:** Sanjay Saxena