

**B.Com. (Financial Services) (Semester-II)**

**PAPER-I COMMUNICATION SKILLS IN ENGLISH – II**

**TERM-1**

Listening Skills: Barriers to listening; effective listening skills; feedback skills. Activities: Listening exercises – Listening to conversation, News and TV reports

Attending telephone calls; note taking and note making. Activities: Taking notes on a speech/lecture

Speaking and Conversational Skills: Components of a meaningful and easy conversation; understanding the cue and making appropriate responses; forms of polite speech; asking and providing information on general topics.

Activities: 1) Making conversation and taking turns 2) Oral description or explanation of a common object, situation or concept

The study of sounds of English,

Stress and Intonation,

Essentials of Spoken English.

**TERM-II**

Situation based Conversation in English

**Submitted By:**

Mrs. Deep

Asst. Prof in English

**B.Com. (Financial Services) (Semester-II)**

**PAPER-II (PUNJABI (COMPULSORY))**

**ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)**

**ਪਹਿਮੀ ਟਰਮ**

ਆਤਮ ਅਨਾਤਮ (ਕਹਾਣੀ ਭਾਗ) (1-7)  
(ਵਿਸ਼ਾ-ਵਸਤੂ, ਪਾਤਰ ਚਿਤਰਨ)

ਇਤਿਹਾਸਕ ਯਾਦਾਂ (ਇਤਿਹਾਸਕ ਲੇਖ-ਸੰਗ੍ਰਹਿ) (7-10)  
(ਸਾਰ, ਲਿਖਣ ਸ਼ੈਲੀ)

ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁੱਢਲੇ ਸੰਕਲਪ

ਸੰਖੇਪ ਰਚਨਾ  
ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

**ਦੂਸਰੀ ਟਰਮ**

ਆਤਮ ਅਨਾਤਮ (ਕਹਾਣੀ ਭਾਗ) (8-10)  
(ਵਿਸ਼ਾ-ਵਸਤੂ, ਪਾਤਰ ਚਿਤਰਨ)

ਇਤਿਹਾਸਕ ਯਾਦਾਂ (ਇਤਿਹਾਸਕ ਲੇਖ-ਸੰਗ੍ਰਹਿ) (11-12)  
(ਸਾਰ, ਲਿਖਣ ਸ਼ੈਲੀ)

ਸ਼ਬਦ ਸ਼ੈਲੀਆਂ

Submitted by:  
Ms. Harpreet Kaur  
Asst. Prof. in Punjabi

**PAPER-II ਮੁੱਢਲੀ ਪੰਜਾਬੀ**

**ਪਹਿਲੀ ਟਰਮ**

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ

(ਨਾਂਵ, ਪੜਨਾਂਵ, ਕਿਰਿਆ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ)

ਪੰਜਾਬੀ ਵਾਕ ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ

(ੳ) ਸਾਧਾਰਨ ਵਾਕ, ਸੰਯੁਕਤ ਵਾਕ ਅਤੇ ਮਿਸ਼ਰਤ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਪੈਰ੍ਹਾ ਰਚਨਾ

ਸੰਖੇਪ ਰਚਨਾ

ਚਿੱਠੀ ਪੱਤਰ (ਘਰੇਲੂ ਅਤੇ ਦਫ਼ਤਰੀ)

ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰ

**ਦੂਜੀ ਟਰਮ**

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ

(ਸਬੰਧਕ, ਯੋਜਕ ਅਤੇ ਵਿਸਮਿਕ)

ਪੰਜਾਬੀ ਵਾਕ ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ

(ਅ) ਬਿਆਨੀਆ ਵਾਕ, ਪ੍ਰਸ਼ਨਵਾਚਕ ਵਾਕ ਅਤੇ ਹੁਕਮੀ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਪੈਰ੍ਹਾ ਰਚਨਾ

ਸੰਖੇਪ ਰਚਨਾ

ਚਿੱਠੀ ਪੱਤਰ (ਘਰੇਲੂ ਅਤੇ ਦਫ਼ਤਰੀ)

ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰ

Submitted by:  
Dr. Baljinder Kaur  
Asst. Prof. in Punjabi

**PAPER-III QUANTITATIVE TECHNIQUES FOR BUSINESS-II**

**TERM-1**

**Correlation Analysis:-**

*Simple Correlation between two variables (ICT)* (grouped and ungrouped data), Rank Correlation, Concurrent Correlation, Partial and multiple Correlations

**Probability Theory:-**

Addition and Multiplication theorems, Probability Distribution, Binomial, Poisson and normal (Fitting of these distributions)

**Simple Regression Analysis:-**

Grouped and Ungrouped data Interpolation and Extrapolation with equal and unequal class intervals (Binomial, Newton's and Lagrange's formula)

**TERM-2**

**Sampling:-**

Various Concepts- Population, Sampling Units, Complete enumeration sample survey, Features of a good sample, Sampling Techniques

**Submitted By:**

Ms. Harpreet Kaur Uppal  
Asst. Prof in Economics

**Books Recommended**

- i. Gupta, SC: Fundamentals of Statistic, Himalaya Publishing House, 7th Edition, 2018, Delhi
- ii. Gupta, SP: Statistical Methods, Sultan Chand & Sons, 43rd Edition, 2014, Delhi
- iii. Dhawan, S. Quantative techniques for business II, Sharma Publications, Jalandhar

**B.Com. (Financial Services) (Semester-II)**

**Paper-IV MERCANTILE LAW**

**TERM-1**

Contract Act- Definition, Nature of Contract, Offer & acceptance, Consideration, *Capacity to Contract, Free Consent, Discharge of Contract (ICT)*

Contract of Bailment & Pledge, *Contract of agency, Consumer Protection Act (ICT)*

Factories Act, Industrial Dispute Act

**TERM-2**

Trade Union Act

*Payment of Wages Act (ICT)*, Workman compensation Act

**Submitted By:**

Mrs. Jaskiranjit Kaur  
Asst. Prof in Commerce

**Books Recommended**

- i. Rao, B.J, (2017) Industrial Law, Agra, Uttar Pradesh: Sahitya Bhawan Publications
- ii. Garg, K.C., Sareen, V.K. (2020) Mercantile Law, Ludhiana, Punjab: Kalyani Publications
- iii. Taxmann Publishers. (2020) Labour Laws. New Delhi
- iv. Kapoor, N.D., Abbi, R. (2019) Elements of Business Laes, New Delhi: Sultan Chand Publications
- v. Gogna, P.P.S. (2017) Mercantile Law, New Delhi: Vikas Publishing House
- vi. Pillai, R.S.N. (2013) Legal Aspects of Business, New Delhi: Sultan Chand Publications

**PAPER V: BANKING OPERATIONS AND REGULATIONS**

**Term – 1**

Modern Commercial Banking- *Role and function of banks (ICT)*, *Structure of Banking in India (ICT)*, Banker Customer Relationship, *Various types of bank accounts (ICT)*, Opening of bank accounts & its operations, closing of bank accounts, Various types of customers, *KYC norms (ICT)*, Principles of lending-loans and advances, documentation, Capital Adequacy and *provisioning Norms, Non Performing Assets (ICT)*.

**Term – 2**

Narshimam Committee Report, *Central Bank- Role, Function, Banking Reforms (ICT)*

**Submitted By:**

Dr. Payal

Asst. Prof in Commerce

**Books Recommended**

- i. Srivastave, P.K. (2016) Banking Theory & Practice, Ludhiana, Punjab : Kalyani Publications
- ii. Indian Institute of Banking & Finance. (2017). Principles and Practices of Banking, 3<sup>rd</sup> edition, MacMillan Publishers India Private Ltd.
- iii. Singh, J., S.P. (2020) Banking Operations and Regulations, Ludhiana, Punjab : Kalyani Publications

**B.Com. (Financial Services) (Semester-II)**

**PAPER-VI INDIAN FINANCIAL SYSTEM**

**TERM-1**

Introduction to Indian Financial System, significance, Purpose & Organization, Liberalization of Financial system, , Meaning and components of Indian Financial System ,Financial Markets:- Capital & Money Markets

Financial Instruments:- Traditional and Innovative Financial Services:- Objectives, types, intermediaries, financial service sector problems & reforms.

**TERM-2**

Financial Institution: - Commercial Banking development- Types, Rate, Recent Developments, Life & non-Life insurance only

***Fundamental concept of Money, Money Supply, Money Creation (ICT)***

**Submitted By:**

Ms. Harleen Kaur

Asst. Prof in Commerce

**Books Recommended**

- i. Khan, M.Y, “Indian Financial System” fifth edition by Tata McGraw Hill Publishing Co.Ltd

**B.Com. (Financial Services) (Semester-II)**

**PAPER-VIII CORPORATE AND BANK ACCOUNTING**

**TERM-1**

Introduction to Company, features, types, *legal provisions regarding the preparation of Final accounts (ICT)*, Final Accounts of companies

Issues of Share capital and debentures (and its redemption), Issue and *redemption of preference shares (ICT)*

**TERM-2**

*Amalgamation (ICT)* (excluding intercompany owings and holdings), Internal Reconstruction Accounts for Bankers; Rules for bank accounts, cash / clearing / transfer vouchers / system – subsidiary book and main day book – General Ledger – Branch v/s Bank, Accounts *Preparation of Final accounts (ICT)* for banks; Provision and accounting for NPAs, Calculation of Simple Interest and Compound Interest –Fixed and Floating Interest Rates – Calculation of EMIs – Calculation of front end and back end interest –Calculation of Annuities

**Submitted By:**

Mrs. Savita Khanna  
Asst. Prof in Commerce

**Books Recommended**

- i. Shukla, M.C., Gupta, S.C. (2016) Advanced Accounts, Sultan Chand
- ii. Jain, S.P., Narang, K.L. (2012) Corporate Accounting, Ludhiana, Punjab: Kalyani Publications
- iii. Grewal, T.S (2020) Double entry book keeping, Sultan Chand



**B.Com. (Financial Services) (Semester-II)**

**Drug Abuse: Problem, Management and Prevention**  
**DRUG ABUSE: MANAGEMENT AND PREVENTION**

**TERM-1**

**Prevention of Drug abuse:**

Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny. School: Counseling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

**Controlling Drug Abuse:**

Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs

**TERM-2**

Publicity and media, Campaigns against drug abuse, Educational and awareness program  
Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

**Submitted by:**

Mrs. Rupinder Kaur

Asst. Prof. in Environmental Studies

**B.Com (Pass & Hons.) (Semester-II)**

**BCG-201 ENGLISH (COMPULSORY)**

**TERM-1**

Tales of Life (Chapters 7,9,10,11)

English Grammar in Use, 4<sup>th</sup> Edition by Raymond Murphy, CUP (Units: 49-65)

Personal letter Writing and English Grammar in Use (Units: 82-90)

Prose for Young Learners (Fourth Edition) by Raymond Murphy, CUP 7, 8, 9, 10

**TERM-2**

Tales of Life (Chapter 12)

English Grammar in Use, 4<sup>th</sup> Edition by Raymond Murphy, CUP (Units: 67-81)

Personal letter Writing and English Grammar in Use (Units: 91-97)

Prose for Young Learners (Fourth Edition) by Raymond Murphy, CUP 11

**Submitted by:**

Ms. Deepika Khanna, Mrs. Deep  
Asst. Prof. in English

**B.Com (Pass & Hons.) (Semester-II)**

**BCG -202 ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)**

**ਪਹਿਲੀ ਟਰਮ**

ਦੋ ਰੰਗ (ਕਹਾਣੀ ਭਾਗ) (1 ਤੋਂ 7 ਤੱਕ)  
(ਵਿਸ਼ਾ- ਵਸਤੂ, ਸਾਰ, ਲੇਖਕ ਦਾ ਜੀਵਨ ਤੇ ਰਚਨਾ)

ਸੰਸਾਰ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਹਸਤੀਆਂ (ਜੀਵਨੀਆਂ) (10 ਤੋਂ 16 ਤੱਕ )  
(ਵਿਸ਼ਾ- ਵਸਤੂ, ਸਾਰ, ਨਾਇਕ- ਬਿੰਬ)

ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ-ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁਢਲੇ ਸੰਕਲਪ।  
ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ  
ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

**ਦੂਜੀ ਟਰਮ**

ਦੋ ਰੰਗ (ਕਹਾਣੀ ਭਾਗ) (8 ਤੋਂ 10 ਤੱਕ)  
(ਵਿਸ਼ਾ- ਵਸਤੂ, ਸਾਰ, ਲੇਖਕ ਦਾ ਜੀਵਨ ਤੇ ਰਚਨਾ)

ਸੰਸਾਰ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਹਸਤੀਆਂ (ਜੀਵਨੀਆਂ) (17, 18)  
(ਵਿਸ਼ਾ- ਵਸਤੂ, ਸਾਰ, ਨਾਇਕ- ਬਿੰਬ)

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ

**Submitted by:**

Ms. Kiran Bala, Ma. Harpreet Kaur  
Asst. Prof. in Punjabi

**B.Com (Pass & Hons.) (Semester-II)**

**BCG -202 ਮੁੱਢਲੀ ਪੰਜਾਬੀ**

**ਪਹਿਲੀ ਟਰਮ**

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ

(ਨਾਂਵ, ਪੜਨਾਂਵ, ਕਿਰਿਆ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ)

ਪੰਜਾਬੀ ਵਾਕ ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ

(ੳ) ਸਾਧਾਰਨ ਵਾਕ, ਸੰਯੁਕਤ ਵਾਕ ਅਤੇ ਮਿਸ਼ਰਤ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਪੈਰ੍ਹਾ ਰਚਨਾ

ਸੰਖੇਪ ਰਚਨਾ

ਚਿੱਠੀ ਪੱਤਰ (ਘਰੇਲੂ ਅਤੇ ਦਫ਼ਤਰੀ)

ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰ

**ਦੂਜੀ ਟਰਮ**

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ

(ਸਬੰਧਕ, ਯੋਜਕ ਅਤੇ ਵਿਸਮਿਕ)

ਪੰਜਾਬੀ ਵਾਕ ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ

(ਅ) ਬਿਆਨੀਆ ਵਾਕ, ਪ੍ਰਸ਼ਨਵਾਚਕ ਵਾਕ ਅਤੇ ਹੁਕਮੀ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਪੈਰ੍ਹਾ ਰਚਨਾ

ਸੰਖੇਪ ਰਚਨਾ

ਚਿੱਠੀ ਪੱਤਰ (ਘਰੇਲੂ ਅਤੇ ਦਫ਼ਤਰੀ)

ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰ

Submitted by:  
Dr. Baljinder Kaur  
Asst. Prof. in Punjabi

**BCG–203: ADVANCED FINANCIAL ACCOUNTING**

**TERM-1**

**Depreciation – Provisions and Reserves:**

**Depreciation (ICT):** Meaning–Causes–Objects of providing for depreciation – Factors affecting depreciation – Accounting Treatment- **Methods of providing depreciation (ICT):** Straight line method – Diminishing Balance Method.

**Provisions and Reserves:**

Reserve Fund - Different Types of Provisions and Reserves.

**Accounts from Incomplete Records – Hire Purchase and Installment Purchase System:**

**Single Entry (ICT):** Features – Books and Accounts maintained – Recording of transactions – Ascertainment of Profit (Statement of Affairs method only). Hire Purchase System: Features – Accounting Treatment in the Books of Hire Purchaser and Hire Vendor – Default and Repossession. Instalment Purchase System: Difference between Hire purchase and Instalment Purchase Systems – Accounting Treatment in the books of Purchaser and Vendor.

**TERM-2**

**Partnership Accounts:**

Legal provisions in the absence of Partnership Deed Fluctuating Capitals – Preparation of final accounts **Treatment of Goodwill and Admission of a partner (ICT)**, accounting treatment of Retirement and Death of a Partner – **Dissolution of Firm (ICT)** (Excluding Sale to Firm, Company and Amalgamation).

**Dissolution of Partnership Firms:** Legal Position, Accounting for simple dissolution, Applications of rule in case of Garner Vs. Murray in case of insolvency of partner(s) (excluding piecemeal distribution and sale of a firm to a company).

**Practical**

**Tally - (Latest Version)**

Submitted by:  
Mrs. Savita Khanna  
Asst. Prof. in Commerce

**Books Recommended**

- i. Tandon, R. (2020) Advanced Financial Accounting, Ludhiana, Punjab: Kalyani Publications
- ii. Dhira, A.K, Chopra, U. (2020) Advanced Financial Accounting, Jalandhar, Punjab: Sharma Publications
- iii. Grewal, T.S. (2020) Double entry Book Keeping, Sultan Chand
- iv. Tulsian, P.C, Accountancy

**B.Com (Pass & Hons.) (Semester-II)**

**BCG–204: COMMERCIAL LAWS**

**TERM-1**

**The Indian Contract Act, 1872**

Contract – Meaning, *Characteristics and kinds (ICT)*, Essentials of valid contract – Offer and acceptance, consideration, contractual capacity, free consent. Discharge of contract – *Modes of discharge (ICT)*, Breach of Contracts and its remedies.

Contract of *Indemnity and Guarantee (ICT)*

Contract of Bailment & Pledge, *Contract of Agency (ICT)*

**The Sale of Goods Act, 1930**

Contract of sale, meaning and difference between sale and agreement to sell., *Conditions and warranties (ICT)*, Transfer of ownership in goods including sale by non-owners, Performance of contract of sale, Unpaid seller – meaning and *rights of an unpaid seller against the goods and the buyer (ICT)*.

**TERM-2**

**Consumer Protection Act:** Definitions, objectives, *redressal machineries (ICT)*.

***The Limited Liability Partnership Act, 2008 (ICT)***

Salient Features of LLP, Difference between LLP and Partnership, LLP and Company, LLP Agreement, Nature of LLP, Partners and Designated Partners, Incorporation Document, Incorporation by Registration, Registered Office of LLP and Change Therein, Change of Name, Partners and their Relations, Extent and Limitation of Liability of LLP and Partners, Whistle Blowing, Contributions, Financial Disclosures, Annual Return, Taxation of LLP, Conversion to LLP, Winding Up and Dissolution.

**Submitted by:**

Ms. Manpreet Kaur, Ms. Amandeep Kaur  
Asst. Prof. in Commerce

**Books Recommended**

- i. Garg, K.C., Sareen, V.K., Kaur, D., Sharma, M.(2020), Commercial Laws, Ludhiana, Punjab: Kalyani Publications

**BCG–205  
BUSINESS ECONOMICS**

**TERM-1**

**Theory of Demand:**

Meaning of demand and its types, law of demand, *price elasticity of demand and its measurement (ICT)*. Consumer's Behaviour: Utility approach: Brief outline of *law of diminishing marginal utility and law of equi-marginal utility (ICT)*.

**Indifference Curve Approach:**

Meaning, properties, price, income and substitution effect, Revealed Preference Approach.

**Theory of Production:**

*Law of variable proportions (ICT)* and Law of returns to scale. Short and Long run cost curves, *Traditional and Modern Theory of Costs (ICT)*.

**Revenue:**

Average revenue, Marginal revenue and Total revenue. Relationship between average revenue and marginal revenue and Elasticity of demand/

**Perfect Competition:** *Meaning, features, price and output determination of firm and industry under perfect competition (ICT)*.

**TERM-2**

**Monopoly:** Meaning, features, price and output determination under monopoly.

**Monopolistic Competition:** *Meaning, features, price and output determination under Monopolistic competition (ICT)*.

**National Income:** *Definition and Importance of National Income (ICT)*, Gross and Net Domestic Product; Personal Income and Disposable Income.

*Measurement of National Income: Income, Output and Expenditure Method, Problems in measurement of National Income particularly in underdeveloped countries (ICT)*.

**Consumption:** Meaning, determinants (subjective and objective) and importance, *Keynes Psychological law of consumption (ICT)*.

Submitted by:  
Dr. Moninder Kaur, Mrs. Ravneet Arora  
Asst. Prof. in Economics

**Books Recommended**

- i. Ahuja, H. L., "Modern Micro Economics", (2009), Sultan Chand and Co., New Delhi.
- ii. Jain, T.R. Business Economics, (2016), VK Global Publications, New Delhi
- iii. Walia, H.S., Lekhi, R.K. Business Economics, (2014), Kalyani Publishers, New Delhi

**B.Com (Pass & Hons.) (Semester-II)**

**BCG–206: FUNCTIONAL MANAGEMENT**

**TERM-1**

**Management:**

Introduction–Meaning, nature and characteristics of Management Scope and functional areas of management – Management as a science, art or profession – Management & Administration – *Principles of management (ICT)* – *Social responsibility of Management (ICT)* and Ethics.

**Personnel Management:**

Meaning, Significance & Functions, *Recruitment, Selection (ICT)* and training. Job Evaluation and Merit Rating, Worker's participation in Management.

**Marketing Management:**

*Concept of Marketing, Functions of Marketing, Marketing Research– Meaning and Techniques (ICT).*

**TERM-2**

Advertising and Salesmanship.

**Strategic Management:**

*Meaning, Need, Importance, Process and Role of C.E.O. (Chief Executive Officer) in Strategic Management (ICT).*

**Production Management:** Functions, Production Planning and Control, Quality Control.

Submitted by:  
Mrs. Dilpreet Kaur  
Asst. Prof. in Commerce

**Books Recommended**

- i. Gupta , R.S., Sharma, B.D. (2017) Functional Management, Ludhiana, Punjab : Kalyani Publications
- ii. Sharma, R.K., Gupta, S.K (2018) Functional Management, Ludhiana, Punjab: Kalyani Publications
- iii. Sandhu, R.S. (2016) Functional Management, Jalandhar, Punjab: Sharma Publications
- iv. Singla, R.K. (2016) Functional Management, New Delhi: V.K Global Publication



**B.Com (Pass & Hons.) (Semester-II)**

**Drug Abuse: Problem, Management and Prevention**  
**DRUG ABUSE: MANAGEMENT AND PREVENTION**

**TERM-1**

**Prevention of Drug abuse:**

Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny. School: Counseling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

**Controlling Drug Abuse:**

Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs

**TERM-2**

Publicity and media, Campaigns against drug abuse, Educational and awareness program  
Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

Submitted by:  
Mrs. Rupinder Kaur  
Asst. Prof. in Environmental Studies

**B.Com (Pass & Hons.) (Semester – IV)**

**BCG–401: ENGLISH (COMPULSORY)**

**TERM-1**

Moments in time (7-11 Poems)

Making Connections (Unit 3)

English Grammar in Use (Unit 26-37, 42-48)

**TERM-2**

Moments in time GNDU Publication (Poem 12)

Making Connections 3<sup>rd</sup> Edition, Cambridge University (Unit 4)

English Grammar in Use Raymond Murphy (Unit 92-97, 113-120)

**Submitted by:**

Ms. Deepika Khanna, Mrs. Deep

Asst. Prof. in English

**B.Com (Pass & Hons.) (Semester – IV)**

**BCG- 402: ( ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ )**

**ਪਹਿਲੀ ਟਰਮ**

ਮੇਰੀ ਜੀਵਨਗਾਥਾ (ਸਵੈ ਜੀਵਨੀ) ਡਾ.ਦੀਵਾਨ ਸਿੰਘ (ਨਾਇਕ ਬਿੰਬ/ ਸਵੈ ਜੀਵਨੀ ਦੇ ਤੌਰ ਤੇ)

ਫਾਸਲੇ (ਨਾਟਕ): ਜਤਿੰਦਰ ਬਰਾੜ (ਵਿਸ਼ਾ ਵਸਤੂ/ ਸਾਰ/ ਦੋ ਪਾਤਰਾਂ ਦੀ ਪਾਤਰ ਉਸਾਰੀ)

ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ

**ਵਿਆਕਰਣ:**

ਗੁਰਮੁੱਖੀ ਲਿਪੀ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ

**ਦੂਜੀ ਟਰਮ**

ਮੇਰੀ ਜੀਵਨਗਾਥਾ (ਸਵੈ ਜੀਵਨੀ) ਡਾ.ਦੀਵਾਨ ਸਿੰਘ (ਵਾਰਤਕ ਸ਼ੈਲੀ)

ਫਾਸਲੇ (ਨਾਟਕ): ਜਤਿੰਦਰ ਬਰਾੜ (ਨਾਟਕ ਕਲਾ)

**ਵਿਆਕਰਣ:**

ਸ਼ਬਦ ਜੋੜਾਂ ਦੇ ਨਿਯਮ

**Submitted by:**

Ms. Maninder Kaur

Asst. Prof. in Punjabi

**BCG-402 (ਮੁੱਢਲੀ ਪੰਜਾਬੀ)**

**ਪਹਿਲੀ ਟਰਮ**

1. ਸਿੱਖ ਧਰਮ ਦੀ ਸਥਾਪਨਾ ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦਾ ਜੀਵਨ ਤੇ ਉਪਦੇਸ਼ (1469-1539):- ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦਾ ਜੀਵਨ, ਰੱਬ ਸਬੰਧੀ ਵਿਚਾਰ, ਗੁਰੂ ਦਾ ਮਹੱਤਵ, ਸਿੱਖਿਆਵਾਂ। ਸੰਗਤ-ਪੰਗਤ, ਗੁਰਗੱਦੀ ਦੀ ਸਥਾਪਨਾ ਇਸ ਦਾ ਸਮਾਜ ਤੇ ਪ੍ਰਭਾਵ।
2. ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ:- ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ ਤੋਂ ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਤੱਕ (1539-1581):- ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ ਦਾ ਸਿੱਖ ਧਰਮ ਦੇ ਵਿਕਾਸ ਵਿੱਚ ਯੋਗਦਾਨ, ਗੁਰਮੁੱਖੀ ਲਿੱਪੀ, ਗੁਰੂ ਅਮਰਦਾਸ ਜੀ ਦਾ ਸਿੱਖ ਧਰਮ ਦੇ ਵਿਕਾਸ ਵਿੱਚ ਯੋਗਦਾਨ: ਗੋਇੰਦਵਾਲ ਸਾਹਿਬ ਦੀ ਸਥਾਪਨਾ, ਮੰਜੀ ਪ੍ਰਥਾ ਅਤੇ ਸਮਾਜਿਕ ਸੁਧਾਰ, ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਦਾ ਯੋਗਦਾਨ, ਰਾਮਦਾਸਪੁਰਾ ਦੀ ਸਥਾਪਨਾ, ਮਸੰਦ ਪ੍ਰਥਾ।

**ਦੂਜੀ ਟਰਮ**

1. ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦੇ ਸਮੇਂ ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ:- ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦਾ ਯੋਗਦਾਨ, (1581-1606), ਹਰਿਮੰਦਰ ਸਾਹਿਬ ਦਾ ਨਿਰਮਾਣ, ਆਦਿ ਗ੍ਰੰਥ ਸਾਹਿਬ ਦਾ ਸੰਕਲਨ, ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦੀ ਸ਼ਹਾਦਤ ਤੇ ਇਸਦਾ ਮਹੱਤਵ।

**Submitted by:**  
Ms. Maninder Kaur  
Asst. Prof. in Punjabi

**B.Com (Pass & Hons.) (Semester – IV)**

**BCG–403: Goods & Services Tax (GST)**

**TERM-1**

**GST Act 2017: Overview (ICT)**, Constitutional aspects, Implementation, Liability of Tax Payer, GST Council, Brief Introduction to IGST, CGST, SGST and UGST. Levy and collection.

**Exemption from GST:** Introduction, *Composition Scheme and remission of Tax (ICT)*.

**Registration:** Introduction, *Registration Procedure, Special Persons, Amendments / Cancellation (ICT)*.

**Supply: Concept of Supply (ICT)**, including composite supply, mixed supply, interstate supply, intra-state supply, supply in territorial waters, place and time of supply.

**Input Tax Credit: Introduction (ICT)**, Tax Invoice Credit & Debit notes, e-way bill.

**Computation** of GST Liability and Payment including time, method of making payment, challan generation, CPIN, TDS & TCS. Reverse charge.

**TERM-2**

**Returns: various returns to be filed by the assesses (ICT).**

**GST Portal:** Introduction , GST Eco-system, GST Suvidha Provider (GSP), Uploading Invoices.

**Submitted by:**

Mrs. Jaskiranjit Kaur, Ms. Manpreet Kaur  
Asst. Prof. in Commerce

**Books Recommended**

- i. Datey, V.S. (2020) GST Ready Reckoner, New Delhi: Taxmann Publications
- ii. Gupta, V., Mahajan, P. Goods & Services Tax, Ludhiana, Punjab: Kalayni Publications
- iii. Aggarwal, R., Goal, N. (2019) Goods & Service Tax and Custom Laws, New Delhi: Sultan Chand Educational Publishers
- iv. Sareen, V.K., Sharma, A. (2020) GST (Goods & Services Tax), Ludhiana, Punjab: Kalyani Publications
- v. Singhania, U.K., Singhania, M. (2019) Students' Guide to Income Tax including GST, New Delhi : Taxmann Publications
- vi. Ahuja, G., Gupta, R. (2019) Systematic Approach to Taxation containing Income Tax and GST, Gurgaon, Haryana: Wolters Kluwer Publications

**THE FACTORIES ACT, 1948:**

Importance, Definitions, Provisions of the Factories Act relating of Health, Safety and welfare of the workers *Working hours of Adults and Young persons (ICT)*.

**TRADE UNIONS ACT, 1926:**

*Definition (ICT)* and Registration of trade unions Rights and liabilities of Registered Trade Unions.

**INDUSTRIAL DISPUTES ACT, 1947:**

Meaning of Industrial Disputes, *Authorities under the Industrial disputes Act (ICT)*, their duties and right, Strikes and lockouts, *Lay off and retrenchment (ICT)*.

**EMPLOYEES STATE INSURANCE ACT, 1948:**

Constitution and Functions *Employees state Insurance corporation (ICT)*, Standing committee and medical Benefit Council, Provisions relating to Contribution and *benefits (ICT)*.

**TERM-2**

**WORKMEN'S COMPENSATION ACT, 1923:**

*A brief study of the provisions to compensation of workman (ICT)*.

**Submitted by:**

Mrs. Dilpreet Kaur, Ms. Twinkle  
Asst. Prof. in Commerce

**Books Recommended**

- i. Garg. K.C., Sareen, V.K., Kaur, D., Sharma, A., Sharma, M. (2018) Industrial Laws, Ludhiana, Punjab: Kalyani Publications.
- ii. Sharma, V.K., Sandhu, R.S., Duggal, S., Kaur, A. (2020) Industrial Laws, Jalandhar, Punjab: Sharma Publications.
- iii. Sharma, A. (2017) Industrial Law, New Delhi: VK Global Publications
- iv. Rao, B.J. (2017) Industrial Law, Agra: Sahitya Bhawan Publications
- v. Zad, N.S. (2018) Industrial Labour and General Laws, New Delhi: Taxmann Publications

**BCG-405 PRINCIPLES AND PRACTICES: OF BANKING AND INSURANCE**

**TERM-1**

Their types and functions, Management and organizational set up of commercial banks, Impact of Banking reforms on organizational structure of banks (with SBI as model), Management of deposits, Advances and loans in commercial banks. **Central Bank (ICT)** -their role, objectives and functions Reserve Bank of India and its monetary policy since 1951. **Present structure of commercial banking in India (ICT)**. State Bank of India. Reforms and Indian Banking. Structure, Organisation and regulation of Indian Money Market and Capital Market.

Insurance: Concept, Principles and Its relevance in developing country like India. Attitude towards the insurance cover. Life Insurance: Nature & use of Life Insurance – distinguishing characteristics of life insurance contracts.

**TERM-2**

Introduction to mutual Funds. Introduction to merchant banking. Introduction to Asset Liability Management. E-Banking. Electronic Transfer of Funds, **Internet Banking(ICT)**. Financial Inclusion-Concept & Importance

Origin and growth of non-life insurance: **Salient features of insurance Act & IRDA Act (ICT)**. Features of some **policies of life insurance (ICT)** & general insurance. Progress in privatization of insurance sector.

**Submitted by:**

Dr. Payal, Mrs. Savita Khanna  
Asst. Prof. in Commerce

**Books Recommended**

- i. ICSI, Banking and Insurance Law and Practice (2010), New Delhi: Taxmann Publications
- ii. Indian Institute of Banking and Finance, 'Principles and Practices of Banking, Mcmillan Education
- iii. Srivastav, P.K (2016) Banking Theory and Practice, Himalaya Publishing House
- iv. Varshney, P.N. (2011) Banking Law and Practices, New Delhi:Sultan Chand
- v. Vij M., Dhawan, S. (2012) Merchant Banking & Financial Services, Tata McGraw Hill Education Pvt. Ltd.

**B.Com (Pass & Hons.) (Semester – IV)**

**BCG-406 COST ACCOUNTING**

**TERM-1**

*Meaning, nature, scope & advantages of Cost Accounting. Distinction between Cost & Financial Accounting (ICT), Reconciliation of Cost and Financial Accounts (ICT). Unit Costing, Job, Batch (ICT), Contract, Process, Cost Control - Marginal Costing, Break Even Analysis, Budgetary Control. (ICT).*

**TERM-2**

Elements of Cost – materials. Purchase & Storage, Control & Pricing, Issue & Evaluation. Labour – Meaning Components of Labour Cost, Accounting and Control of idle time and Overtime Costs, Overheads – Classifications Allocations, Absorption and Accounting. *Introduction to Activity Based Costing (ICT).* Standard Costing

**Submitted by:**

Dr. Samriti Kapoor, Mrs. Priyanka Sharma  
Asst. Prof. in Commerce

**Books Recommended:**

- i. Prasad, N.K. (2017) Principles and Practices of Cost Accounting, Calcutta: Book Syndicate Pvt. Ltd.
- ii. Khan, M .Y. and Jain P.K., “Cost accounting”, 1st edition (2003), Tata McGraw Hill Jawahar Lal and Srivastatva “Cost Accounting”, 4th edition (2008), Tata McGraw Hill Publishing Co., New Delhi
- iii. Arora, M.N. (2017) Cost and Management Accounting, Mumbai: Himalaya Publishing House Pvt. Ltd.
- iv. Jain, S.P., Narang, K.L., Aggarwal, S., Sehgal, M. and Gupta, B. (2020) Cost Accounting, Noida, U.P: Kalyani Publication



**ESL 221 Environmental Studies (Compulsory Paper)**

**TERM-1**

**The multidisciplinary nature of environmental studies**

Definition, scope and importance, Need for public awareness

**Natural Resources: Renewable and non-renewable resources:**

Natural resources and associated problems.

(a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

(b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

(c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

(d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

(e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.

(f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles.

**Ecosystems**

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

**Biodiversity and its conservation**

- Introduction – Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

**Human Population and the Environment**

- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health

## **B.Com (Pass & Hons.) (Semester – IV)**

- Human Rights
- Value Education
- HIV / AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

### **TERM-2**

#### **Environmental Pollution :**

##### **Definition :**

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

##### **Social Issues and the Environment**

- From unsustainable to sustainable development
- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

##### **Field Work**

- Visit to a local area to document environmental assets River / forest / grassland / hill / mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

**Submitted by:**

Mrs. Rupinder Kaur

Asst. Prof. in Environmental Studies

**B.Com (Pass & Hons.) (Semester – VI)**

**BCG–601: ENGLISH (COMPULSORY)**

**TERM-1**

The English Teacher by R.K. Naryan. (Chapter 1-5)

Glimpses of Theatre(GNDU Publication)

- i) The Will
- ii) Villa for Sale
- iii) Progress
- iv) The Monkey's Paw

Essay Writing

**TERM-2**

Glimpses of Theatre (GNDU Publucation)

The English Teacher. (Chapter 6-8)

Glimpses of Theatre: Play

- i) The Monkey's Paw (ICT)*

Revision

**Submitted by:**

Ms. Deepika Khanna, Mrs.Deep  
Asst. Prof. in English

**BCG–602: ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)**

**ਪਹਿਲੀ ਟਰਮ**

1. ਕਾਵਿ ਗੌਰਵ (ਪਹਿਲੇ ਚਾਰ ਕਵੀ)  
(ਸ਼ੇਖ ਫਰੀਦ, ਸ਼ਾਹ ਹੁਸੈਨ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ, ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ)  
(ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ/ ਵਿਸ਼ਾ-ਵਸਤੂ/ ਸਾਰ)
2. ਧਰਤੀਆਂ ਦੇ ਗੀਤ (ਸਫ਼ਰਨਾਮਾ) ਸਮਾਜ ਸੱਭਿਆਚਾਰ ਪਰਿਪੇਖ, ਲੇਖਕ ਜੀਵਨ ਤੇ ਰਚਨਾ)
3. ਲੇਖ ਰਚਨਾ (ਵਿਗਿਆਨ, ਤਕਨਾਲੋਜੀ ਅਤੇ ਚਲੰਤ ਮਸਲਿਆਂ ਸੰਬੰਧੀ)
4. ਆਧੁਨਿਕ ਸਾਹਿਤ ਰੂਪ: ਕਵਿਤਾ, ਕਹਾਣੀ, ਨਾਵਲ (ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਤੱਤ)
5. ਵਿਆਕਰਣ :  
ਵਿਆਕਰਨ ਸ਼੍ਰੇਣੀਆਂ: ਲਿੰਗ, ਵਚਨ  
ਕਿਰਿਆ ਵਾਕਾਂਸ਼

**ਦੂਜੀ ਟਰਮ**

1. ਕਾਵਿ ਗੌਰਵ (ਦੋ ਕਵੀ)  
(ਵਾਰਿਸ ਸ਼ਾਹ, ਸ਼ਾਹ ਮੁਹੰਮਦ) (ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ/ ਵਿਸ਼ਾ-ਵਸਤੂ/ ਸਾਰ)
2. ਧਰਤੀਆਂ ਦੇ ਗੀਤ (ਸਫ਼ਰਨਾਮਾ) (ਸਫ਼ਰਨਾਮੇ ਦੇ ਤੌਰ ਤੇ)
3. ਆਧੁਨਿਕ ਸਾਹਿਤ ਰੂਪ: ਨਾਟਕ ਅਤੇ ਇਕਾਂਗੀ
4. ਵਿਆਕਰਣ  
ਵਿਆਕਰਨ ਸ਼੍ਰੇਣੀਆਂ: ਕਾਰਕ ਤੇ ਕਾਰਕੀ ਸੰਬੰਧ

**Submitted by:**

Dr. Baljinder Kaur, Ms. Kiran Bala

Asst. Prof. in Punjabi

**BCG–603: OPERATIONS RESEARCH**

**TERM-1**

***Basics of Operational Research (ICT)*** – Development, Definition Characteristics, Necessity, Scope, Limitation. Linear Programming – Introduction, Application, Formulation of Linear Programming Problem, General Linear Programming Problem, Graphical Method of Solution. Theory of Simplex method, Big–M Method. Transportation Model – Assumption, Formulation and Solution of transportation Models, Trans–Shipment Problems, Definition of Assignment Model, Hungarian Method for solution of Assignment Problems, Traveling Salesman Problem. Queuing Models – Application, Introduction, Elements, operating Characteristics, Waiting Time and Idle Time Costs, Model I – Single Channel poisson Arrivals with Exponential Service Times. Infinite Population; Assumption & Limitation Poisson of Queuing Model. Game Theory – Theory of Games, Characteristics of Games, Rules – Look for a pure Strategy, Reduce Game by Dominance, Mixed Strategies (2 x 2 Games, 2 x n Games or m x 2 Games).

**TERM-2**

Net Work Analysis in Project Planning: Project, Project Planning scheduling, PERT and CPM, Cost Analysis and Crashing the Network Exercises.

**Submitted by:**

Mrs. Harpreet Kaur, Ms. Ramya  
Asst. Prof. in Commerce

**Books Recommended**

- i. Sharma, K.Bhushan, Chawla, K.K., Gupta Vijay, Opoerations Research, Ludhiana, Punjab, Kalyani Publications
- ii. Kapoor, V.K., Operations Research, New Delhi, Sultan Chand & Sons

**BCG–604: CORPORATE GOVERNANCE**

**TERM-1**

Ethics in Business: Concept of Business Ethics. Corporate Code of Ethics: Environment, Accountability, Responsibility, Leadership, Diversity, Discrimination. Principles of Business Ethics, Characteristics of Ethical Organisation, Theories of Business Ethics, Globalization and Business Ethics, Stakeholder's Protection, Corporate Governance and Business Ethics.

Corporate Governance: Conceptual framework of Corporate Governance, Insider Trading, *Credit Rating Agencies (ICT)*, *Whistle Blowing (ICT)*, Corporate Governance Reforms, Initiatives in India including clause 49. Major Corporate Scandals: Junk Bond Scam (USA), Enron (USA), WorldCom (USA), Tyco (USA), Andersen Worldwide (USA). Kirch Media (Germany), Vivendi (France), Parmalat (Italy) and *Satyam Computer Services Ltd (India) (ICT)*, Common Governance Problems Noticed in various Corporate Failures, Is Corporate Governance always the Cause for Corporate Failures?

*Governance Problems (ICT)*, Codes & Standards on Corporate Governance: Sir Adrian Cadbury Committee (UK), 1992, Smith Report, 2003 (UK), Combined Code of Best Practices (London Stock Exchange), 1998, Calpers Global Corporate Governance Principles (USA), 1996, Hampel Committee on Corporate Governance (UK), OECD Principles of Corporate Governance, 1999, CACG Guidelines/Principles for Corporate, Governance in Commonwealth, 1999, Euroshareholders Corporate Governance Guidelines, 2000, Principles of Good Governance and Code of Best Practice (UK), 2000

**TERM-2**

*Sarbanes–Oxley (SOX) Act, 2002 (USA) (ICT)*

**Submitted by:**

Mrs. Harpreet Kaur, Mrs.Monica Chhabra  
Asst. Prof. in Commerce

**Books Recommended**

- i. Mahendru, S., Payal., Kaur, J., (2020) Corporate Governance, Ludhiana, Punjab: Kalyani Publications
- ii. Gautam, V., Kant, L., Gupta, M. (2019) Corporate Governance, Jalandhar, Punjab: Sharma Publications
- iii. Bansal, R., Bansal, S.K. (2018) Corporate Governance, Ludhiana, Punjab: Kalyani Publications

**BCG–605: WORKSHOP**

**TERM-1**

**Workshop on Goods & Services Tax (GST)**

- *Accounting in GST(ICT)*
- Computing GST Tax
- Applicability of CGST, IGST, SGST, UTGST on Different Transactions and adjustment of credit.
- Preparation of GST *PMT Registers (ICT)*
- Reverse *Charge mechanism(ICT)*
- Billing and Invoicing in GST

**Workshop on Income Tax & e-filing**

- *Applying for PAN (ICT)*
- *E-Filing ITR for Salaried Individuals (ICT).*
- *Advance Tax Computation both for individuals & firms (ICT)*
- E-Filing ITR for Small Proprietorship Business.
- Deductions and E-Filing ITR for Partnership Business
- Filing Challans related to self-assessment Tax, Advance Tax

**TERM-2**

- *Composition Scheme in GST (ICT)*
- TCS and Reverse Charge Implications in case of E Commerce Transactions in GST
- *TDS Accounting (ICT)*, e-payment of challan 281, Return form 260, *Checking form 26AS (ICT)*. Issue of Certificate, Concept of 15G & 15H forms.
- *Payroll Processing (ICT)*

**Submitted by:**

Mrs. Jaskiranjit Kaur, Ms. Manpreet Kaur  
Asst. Prof. in Commerce

**Books Recommended**

- i. Datey, V.S. (2020) GST Ready Reckoner, New Delhi: Taxmann Publications
- ii. Gupta, V., Mahajan, P. Goods & Services Tax, Ludhiana, Punjab: Kalayni Publications
- iii. Aggarwal, R., Goal, N. (2019) Goods & Service Tax and Custom Laws, New Delhi: Sultan Chand Educational Publishers
- iv. Sareen, V.K., Sharma, A. (2020) GST (Goods & Services Tax), Ludhiana, Punjab: Kalyani Publications
- v. Singhania, U.K., Singhania, M. (2019) Students' Guide to Income Tax including GST, New Delhi : Taxmann Publications
- vi. Ahuja, G., Gupta, R. (2019) Systematic Approach to Taxation containing Income Tax and GST, Gurgaon, Haryana: Wolters Kluwer Publications

**TERM-1**

***Portfolio Theory (ICT):*** Merits of Diversification Diversification and Portfolio Risk, ***Portfolio Return and Risk (ICT)***, Calculation of Portfolio Risk, ***Optimal Portfolio (ICT)***.

**Portfolio Selection:** Concept of Portfolio Selection, Optimal Portfolio, Objectives, Risk and Investor Preferences, Investment Constraints, Cut-off Rate and New Securities, Efficient Frontier and Portfolio Selection

**Portfolio Revision:** *Meaning, Need, Techniques of Portfolio Revision, Formula Plans, Rules Regarding Formula Plans, Constant Rupee Value Plan, Constant Ratio Plan, Variable Ratio Plan, Modifications, Rupee Averaging Technique(ICT).*

**Introduction to Investment Management (ICT):** Concept and objectives of investment, Difference between Investment and Speculation, Investment and Gambling, Meaning of Investment Management, Investment Management Process, Investment Alternatives, Features of Investment Avenues, Types of Management Strategies, Approaches to Investment

**Economic and Industry Analysis:** Macro–Economic Analysis, Forecasting

**TERM-2**

***Industry Analysis, Sensitivity of Business Cycle, Industry Life Cycle Analysis, Porter Model of Assessment of Profit Potential of Industries(ICT)***

**Submitted by:**

Ms. Twinkle

Asst. Prof. in Commerce

**Books Recommended**

- i. Sharma, S., Arora, M., Chawla, P., Sharma, K. (2019) Portfolio Management, Jalandhar, Punjab: Sharma Publications
- ii. Vinayak, Y.S. (2019) Portfolio Management, Ludhiana, Punjab: Kalyani Publication
- iii. Tripathi, V. (2019) Security Analysis and Portfolio Management Text and Cases, New Delhi: Taxmann Publications
- iv. Singla, S.K., Gupta, M., Jain, R. (2015) Portfolio Management, New Delhi: VK Global Publications
- v. Kevin, S. (2017) Security Analysis & Portfolio Management, New Delhi: Himalaya Publishing House



**GROUP-I:(ACCOUNTING & FINANCE)  
BCG-612: FINANCIAL SERVICES**

**TERM-1**

Financial services – meaning – features – importance – contribution of financial services in promoting industry – service sector

Merchant banking – meaning, origin and growth of merchant banking in India. Scope of merchant banking services – merchant bankers and management of public issues – merchant banking practices in India. Weakness in the functioning of merchant bankers in India.

Mutual funds: Concept of mutual funds. Growth of mutual funds in India. Mutual fund schemes – money market mutual funds – private sector mutual funds – functioning of mutual funds in India. Lease financing: Meaning – types of leasing – factors influencing lease – performance of leasing industry in India – RBI guidelines for hire–purchase – problems of hire–purchasing companies in India. A.

Factoring: Concept of factoring – why factoring – types of factoring – factoring mechanism – securitization of debt – concept and mechanism.

**TERM-2**

*Retail banking services – personal loan – home loans – car loans – consumer loans – educational loans(ICT)*, concept of plastic money – credit cards – debit card – (meaning – features

– types – merits and de merits of each services are covered)

Venture Capital: Concept of venture capital fund – characteristics – growth of venture capital funds in India.

**Submitted by:**

Ms. Harleen Kaur

Asst. Prof. in Commerce

**Books Recommended**

**Text Books**

- i. Financial Services by Jain Kanubha, Vinayak Charu, Kalyani Publishers
- ii. Financial Services by Shashi K Gupta, Nisha Aggarwal, Neeti Gupta, Kalyani Publishers
- iii. Financial Services by Dr. Monika Sharma, Payal Arora, Priyanka Chugh, Sharma Publishers
- iv. Indian Financial System by MY Khan, Tata McGraw Hill Publishing Company Ltd.

**BCG 631: WINDOWS AND NETWORKING**

**TERM-1**

Operating System and Windows: Operating Systems: Meaning, Definition, Functions and Types of Operating Systems – *Booting process (ICT)* – Disk Operating System: *Internal and External Commands (ICT)* – Wild Card Characters – Computer Virus, Cryptology. Windows operating system – Desktop, Start menu, Control panel, Windows accessories, The System Tray, Adjusting the Rate of Speech on the Fly, Application Display, Inputting Text, Windows Text Navigation Commands, Reading with the screen reader.

Application of Windows–Application Windows Display, Accessing the Ribbons. *The Recycle Bin–Configuring the Recycle Bin (ICT)*. The Run Dialog, Opening a Variety of Items from the Run Dialog, Exploring *Windows Search, Using Search Parameters (ICT)*

Networking– Transmission Modes: Simplex, *Half-Duplex, Full Duplex (ICT)*. Analog and digital transmission. Synchronous and Asynchronous transmission. Multiplexing.

*Network Topologies (ICT)*: Bus, Star, Ring, Mesh, Tree.

**TERM-2**

Network Security: *Network security threats (ICT)* –Malicious code (Malware), *Hacking, Credit card frauds (ICT)*. Spoofing, Sniffing *Firewall (ICT)* (Concept, Components and Constituents, Benefits), Enterprise wide security Framework, secure physical infrastructure).

**Submitted by:**

Mrs. Monika Shahi

Asst. Prof. in Computer Science

**Books Recommended**

- i. Singhm Rachhpal (2019). Windows and Networking: Kalyani Publications
- ii. Khanna, Suman, Kiran (2015). Information Technology: Kalyani Publications
- iii. Sharma, Anshuman (2019). Information Technology: Lakhanpal Publishers

**BCG–632:E–Marketing**

**TERM-1**

**E Marketing**– Meaning, Concept, Nature, Features for E –Marketing Environment, Business Considerations for E Marketing , Unique E Marketing Issues .

**E Marketing Strategies**– Big Picture Strategies, Objectives and Goals, *Segmentation and Positioning(ICT)*

**E– Marketing Techniques:** Search Engines, Directories, Registrations, Solicited targeted E–mails, Interactive sites, Banners, Advertising, Spam Mails, E–mail, Chain letters.

Applications of *5P's (Product, Price, Place, Promotion, People) (ICT)*, E–Advertising Techniques: Banners, Sponsorships, Portals, Online Coupons.

**Introduction to Internet age and marketing**, marketing in an information–intensive environment,

Customer behavior in the future, the internet and international marketing

**Implications of the Internet age for marketing**, implications of the Internet for Consumer Marketing, Data mining in marketing

**Improving marketing productivity in the Internet Age**, *product innovation in the Internet age (ICT)*, developing products on Internet time,

**TERM-2**

Reintermediation and disintermediation in the internet age, *pricing in the internet (ICT)* age, advertising in the internet age, sales and customer and customer service in the internet age, building meaningful relationships through dialogue

**Submitted By:**

Mrs. Monica Chhabra  
Asst. Prof. in Commerce

**Books Recommended**

- i. Gay, R., Charlesworth, A. (2011) Online Marketing Oxford
- ii. Hason, Kalyanam (2013) Internet Marketing and E- Commerce, Cengage
- iii. Strauss, J. Frost, R. (2015) E-Marketing, PHI
- iv. Sheth, Jagdish, N., Krishnan, V., (2001) Internet Marketing

**Group-I: BANKING**  
**PAPER II: ELECTRONIC BANKING AND RISK MANAGEMENT**

**TERM-1**

Electronic Banking– *Core Banking (ICT)* –Electronic products On line Banking – Facilities provided and Security Issues, *Cheque Truncation (ICT)*, Microfiche, Phone and Mobile Banking Electronic Funds Transfer Systems – plain messages (Telex or Data Communication) – Structured messages (SWIFT, etc...) – RTGS

*Information Technology – Current trends – Banknet, RBI net, Datanet, Nicnet, I-net, Internet, E-mail (ICT)*, etc.–Role and uses of technology up gradation.

Global developments in Banking Technology Impact of Technology on Banks, *Effect on Customers and Service Quality (ICT)*.

**Risk Management: Types of risks in banks (ICT)**, Risk Management Frame work in Banks:

Enterprise- wide risk Management in Banks; Elements of Risk Management Frame work; Systematic Risk Management in Banks;

**TERM-2**

Computer Audit – Information System Audit, Information System Security and Disaster Management.

Different Measures of measuring Risks; risk management – process and techniques for assessment and management.

*Asset– liability management in banks, Role of RBI (ICT)*.

**Submitted by:**

Ms. Rimmy Chhabra  
Asst. Prof. in Commerce

**Books Recommended**

Marrison, Christopher Ian, “The fundamentals of risk measurement”, 2002, New York: McGraw Hill.

**Group-I: BANKING**  
**PAPER-IV: BANK MARKETING**  
**TERM-1**

**Introduction of Marketing and Key Concepts**—Definition Marketing and Market, Four elements in Marketing Mix and their inter relationship. Marketing Planning—Micro and Macro factors influencing the market for an organisation, Bank Marketing and Marketing Mix, Bank Distribution. The art of Customer Service as applied to banking.

**Customer Behaviour in Banking**, Banking Consumer and Market Segmentation—Mass Marketing, Multiple Marketing, Steps in strategy formulation, *Marketing Research in Banking—types of data—primary and secondary, uses of Marketing Research (ICT)*. Relationship Marketing in Banking, Competitive Analysis in Banking

**Bank's product strategy**—Core, Value Added, Fundamental and Augmented Products, Product Item and Product Line , Difference between product and service , The concept of Product/Service Delivery in Banking, Pricing Strategies and its applications in banking—Elasticity of demand, Break Even Analysis, *Different types of products and key variables (ICT)*.

**TERM-2**

**Banking Promotion Strategy**— The Communication process, Goals of Communication, *Steps in developing effective communication (ICT)*, Selling and Organising for sales and Selling to corporate clients—Meaning of corporate clients, relationship and transaction banking, bank organisation for large corporate clients.

**Submitted by:**  
Ms. Amandeep Kaur  
Asst. Prof. in Commerce

**Books Recommended**

- i. The Indian Institute of Bankers, Marketing of Banking Services, Macmillan Publications
- ii. Sontakki, C.N., Joshi, R., Gupta, S.K., Gupta, N. (2015) Marketing and human resource management, Ludhiana, Punjab: Kalyani Publications

**Bachelor of Business Administration (Semester – II)**

**BBA-201 ENGLISH (COMPULSORY)**

**TERM-1**

Tales of Life (Stories at Sr. No. 7, 9, 10, 11)

Prose for Young Learners (Essays at Sr. No. 7, 8, 9, 10)

English Grammar in Use (Units: 49- 90) Use 4th Edition  
Personal Letter Writing

**TERM-2**

Tales of Life (Story at Sr. No. 12)

Prose for Young Learners (Essay at Sr. No. 11)

English Grammar in Use (Units: 91- 97) Use 4th Edition  
Revision

**Submitted By:**

Mrs. Deep

Asst. Prof. in English

**Bachelor of Business Administration (Semester – II)**  
**BBA-202 ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)**

**ਪਹਿਲੀ ਟਰਮ**

ਦੋ ਰੰਗ (ਕਹਾਣੀ ਭਾਗ) (1 ਤੋਂ 7 ਤੱਕ)  
(ਵਿਸ਼ਾ- ਵਸਤੂ, ਸਾਰ, ਲੇਖਕ ਦਾ ਜੀਵਨ ਤੇ ਰਚਨਾ)

ਸੰਸਾਰ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਹਸਤੀਆਂ (ਜੀਵਨੀਆਂ) (10 ਤੋਂ 16 ਤੱਕ )  
(ਵਿਸ਼ਾ- ਵਸਤੂ, ਸਾਰ, ਨਾਇਕ- ਬਿੰਬ)

ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ-ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁਢਲੇ ਸੰਕਲਪ।  
ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ  
ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

**ਦੂਜੀ ਟਰਮ**

ਦੋ ਰੰਗ (ਕਹਾਣੀ ਭਾਗ) (8 ਤੋਂ 10 ਤੱਕ)  
(ਵਿਸ਼ਾ- ਵਸਤੂ, ਸਾਰ, ਲੇਖਕ ਦਾ ਜੀਵਨ ਤੇ ਰਚਨਾ)

ਸੰਸਾਰ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਹਸਤੀਆਂ (ਜੀਵਨੀਆਂ) (17, 18)  
(ਵਿਸ਼ਾ- ਵਸਤੂ, ਸਾਰ, ਨਾਇਕ- ਬਿੰਬ)

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ

**Submitted By:**  
Ms. Maninder Kaur  
Asst. Prof. in Punjabi

## **Bachelor of Business Administration (Semester – II)**

### **BBA-203 BUSINESS LAWS**

#### **TERM-1**

Law of Contract (1872): Nature of contract, *Classification (ICT)*, Offer and acceptance, Capacity of parties to contract, *Free consent (ICT)*, Consideration.

Sales of Goods Act (1930): Formation of contracts of sale; Goods and their classification, price; conditions and warranties.

Sales of Goods Act : Transfer of property in goods; Performance of the contract of sales; Unpaid seller and his rights, sale by auction; Hire purchase agreement.

*The Consumer Protection Act (1986 (ICT))*: Definition of consumer, Features, Grievance redressed machinery.

Negotiable Instruments Act (1881): *Definition of negotiable instruments, Features (ICT)*; Promissory note, Bill of Exchange, Cheque; Holder and holder in the due course.

*Crossing of a Cheque (ICT)*, types of crossing. Negotiation, *Dishonour (ICT)* and discharge of negotiable instrument.

#### **TERM-2**

Sales of Goods Act (1930): Formation of contracts of sale; Goods and their classification, price; conditions and warranties.

**Submitted By:**

Mrs. Harpreet Kaur

Asst. Prof. in Commerce

#### **Books Recommended**

- i. Garg, K.C., Sareen, V.K., Business Laws, Ludhiana, Punjab, Kalyani Publications
- ii. Sandhu, S. Rashpal., Kapoor, Taruna., Business Laws, Jalandhar, Punjab, Sharma Publications



PRINCIPLES OF MANAGEMENT

TERM-1

**Management:** Meaning and definition, nature, purpose, scope, importance and functions, Management as art, science and profession, Management as a social system, Concept of management, administration and organization *Principles of management, Scientific Management (ICT)*.

**Evolution of Management Thought:** Contribution of F.W. Taylor, Henri Fayol, Elton Mayo, Chester Barnard & Peter Drucker to the management thought. Various approaches to management (i.e. Schools of Management Thought), Indian management thought.

**Management Techniques:** *Management by Objective (ICT)*: Meaning, Process, Benefits, And Weaknesses.

**Planning:** Meaning, Significance, Types of plans, Nature, Elements: Objectives, Policies, Rules, Procedure, Strategy), *Decision Making (ICT)*

**Organizing:** Meaning, Nature and Purpose of organization, Theories of organization, principles of organization, *Forms of organization (ICT)*  
: Line, Functional and Line and Staff, Formal and informal organization, Delegation, Span of Management: Factors determining effective span.

**Departmentation:** *Definition, Departmentation by function, Territory, Product/service, Customer group and matrix organization (ICT)*, Decentralisation and Departmentation.

**Authority:** Definition, types, responsibility and accountability, *delegation (ICT)*; definition, steps in delegation, obstacles to delegation and their elimination, decentralization vs centralization, determinants of effective decentralization

**Staffing:** Meaning, nature and functions of HRM, Manpower management, factors affecting staffing, Recruitment, Selection, Training and Development, Performance appraisal: need and process.

**Directing:** Motivation: Meaning, Nature, Importance, Types, *Theories of Motivation: Mc. Gregor's, Maslow and Herzberg (ICT)*.

Leadership: Meaning, Nature, Styles, Managerial grid,

Likert system, Theories: Trait, Behavioural, Situational and Followers.

TERM-2

**Coordination:** Principles and Techniques, Difference between coordination and cooperation.

**Controlling:** *Meaning, nature, importance, scope, principles, prerequisites, steps, limitation (ICT)* and techniques.

Submitted By:

Ms. Twinkle

Asst. Prof. in Commerce

Books Recommended

- i. Gupta, V., Batra, S., Vij, K., Sharma, R. (2020) Principles of Management, Ludhiana, Punjab: Kalyani Publications
- ii. Sandhu, R.S. (2017) Principles of Management, Jalandhar, Punjab: Shirma Publications
- iii. Singla, R.K. (2016) Principles of Management, New Delhi: VK Global Publications
- iv. Vasishth, N. , Vasishth, V. (2014) Principles of Management, New Delhi; Taxmann Publication

**TERM-1**

**Macroeconomics:**

*Meaning, nature and scope (ICT).* Basic concepts: Stock and flow variables, static, comparative static and dynamic analysis.

**National Income:**

*Concept and Importance of National Income (ICT).* Gross and Net National Product, Gross and Net Domestic Product; Personal Income and Disposable Income.

**Measurement of National Income:**

*Income, Output and Expenditure Method, Problems in Measurement of National Income (ICT).*

**Consumption Function:**

*Meaning and Nature, Determinants and Measures to raise Propensity to Consume, Keynes Psychological Law of Consumption- Meaning, Properties and Implications (ICT).*

**Investment:** Classical Theory of Investment, Keynesian Theory of Investment, Accelerator, Theory of Investment.

**Business Cycle:**

Keynes's Theory of Trade Cycle, Kaldor's Theory of Trade Cycle, Hicks' Theory of Trade Cycle, Samuelson's Theory of Trade Cycle

**TERM-2**

**Keynesian Economics:**

Theory of Money, Saving and Investment Function.

**Multiplier:**

*Static and Dynamic Analysis (ICT);* Balanced Budget Multiplier, Employment Multiplier.

**Inflation:**

*Meaning, Types, Theories, Causes, effects and Context (ICT).*

Submitted by  
Dr. Moninder Kaur  
Asst. Prof. in Economics

**Books Recommended**

- i. Jain. T.R. (2018) Managerial Economics, New Delhi : VK Global Publication
- ii. Jhingan, M.L. Macro-Economic Theory, 13<sup>th</sup> Edition (2018), Vrinda Publications, New Delhi

**Bachelor of Business Administration (Semester – II)**  
**BBA-206**  
**COMPUTER BASED ACCOUNTING SYSTEM**

**TERM-1**

Computerized Accounting: - Meaning, need, Concepts of Accounting groups, Hierarchy of accounts, Codification in accounting.

Accounting package - Setting up an accounting entity, *Creation of groups and accounts, Designing and creating vouchers (ICT)*; Data Entry operations using the vouchers, Processing for reports to prepare ledger accounts, trial balance and balance sheet.

Database Design for Accounting

Identifying and appreciating the data content in accounting transactions; overview of database concepts, *ER model (ICT)*; creating and implementing RDM for Financial Accounting; SQL to retrieve data and generate accounting information. Documenting transactions using vouchers; System of vouchers and database design for accounting; Storing and maintain transaction data.

Accounts Masters, *Accounts Transaction, Accounts Reports (ICT)*. Preparation and Compilation of complete balance sheet of any Industries/Organization/ Firms. (The mentioned versions of Tally must be replaced with latest available version)

**TERM-2**

Tally

Financial Accounting Packages: *Preparation and online finalization of accounts on Tally (ICT)*, ERP 9.0 (ICT); Introduction of Tally, *ERP 9.0*, Phases of Implementation, Aides for implementation.

Accounts Management (Using Tally, ERP 9.0 Software Package)

**Submitted By:**

Ms. Preet Kawal Kaur

Asst. Prof. in Computer Science

**Books Recommended**

- i. Bhatia, S.S. (2018). Computer Based Accounting System: Kalyani Publication
- ii. Goyal, Neeraj (2015). Computer Based Accounting System: Sharma Publications

**Bachelor of Business Administration (Semester – II)**  
**BBA- 207**  
**FUNDAMENTALS OF BANKING**

**TERM-1**

Commercial Banks—Introduction, evolution, nature, *functions (ICT)*, importance and services provided by commercial banks.

Types of Banks-Commercial Bank, Regional Rural Banks, Foreign Banks, Cooperative Banks, Public bank and Private bank, *difference between public and private banks (ICT)*.

Practical Aspect of Banking- Negotiable Instruments— *Cheques (ICT)*, bills of exchange and promissory notes, endorsements, difference between cheques and bills of exchange. *Customer's Pass Book-Entries in Pass Book (ICT)*, *Effects of errors (ICT)* favourable to the Banker and Customer. Clearing House System

**TERM-2**

Central Bank— *meaning and functions (ICT)*, Techniques of credit control, mechanism of Credit Creation.

Systems of Banking- Group and Chain Banking, *Unit and Branch Banking (ICT)*, Investment Banking and *Mixed Banking (ICT)*.

**Submitted By:**

Mrs. Monica Chhabra  
Asst. Prof. in Commerce

Mrs. Jaismeen Kaur  
Asst. Prof. in Economics

**Books Recommended**

- i. Sharma, P. (2018), Fundamentals of Banking, Ludhiana, Punjab: Kalyani Publications
- ii. Varshnay, P.N., Banking Theory, Law and Practices , New Delhi: Sultan Chand Publishers
- iii. Gorden, E., Natrajan, K., Banking Theory, Law and practices, New Delhi: Himalaya Publishing House

**Bachelor of Business Administration (Semester – II)**  
**Drug Abuse: Problem, Management and Prevention**  
**DRUG ABUSE: MANAGEMENT AND PREVENTION**

**TERM-1**

**Prevention of Drug abuse:**

Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active

Scrutiny.

School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination,

Random testing on students.

**Controlling Drug Abuse:**

Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs.

**TERM-2**

Publicity and media, Campaigns against drug abuse, Educational and awareness program

Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

**Submitted by:**

Mrs. Rupinder Kaur

Asst. Prof. in Environmental Studies

**Bachelor of Business Administration (Semester – IV)**

**BBA–401: ENGLISH (COMPULSORY)**

**TERM-1**

*Making Connections* by Kenneth J. Pakenham, 2<sup>nd</sup> Edn. CUP: Unit-III

*Moments in Time*: Poems at Sr. No. 7-11

*English Grammar in Use* (Fourth Edition) by Raymond Murphy, CUP: Revision of units:  
26-37, 92-97.

**TERM-2**

*Making Connections* by Kenneth J. Pakenham, 2<sup>nd</sup> Edn. CUP: Unit-IV

*Moments in Time*: Poem at Sr. No.12

*English Grammar in Use* (Fourth Edition) by Raymond Murphy, CUP: Revision of units:  
42-48, 113-120.

**Submitted By:**

NT

Asst. Prof. in English

**Bachelor of Business Administration (Semester – IV)**

**BBA-402: ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)**

**ਪਹਿਲੀ ਟਰਮ**

ਮੇਰੀ ਜੀਵਨ ਗਾਥਾ (ਸਵੈ-ਜੀਵਨੀ: ਡਾ. ਦੀਵਾਨ ਸਿੰਘ (ਨਾਇਕ ਬਿੰਬ/ ਸਵੈ ਜੀਵਨੀ ਦੇ ਤੌਰ ਤੇ )

ਫ਼ਾਸਲੇ (ਨਾਟਕ): ਜਤਿੰਦਰ ਬਰਾੜ (ਵਿਸ਼ਾ ਵਸਤੂ/ ਸਾਰ)

ਵਿਆਕਰਣ

ਗੁਰਮੁਖੀ ਲਿਪੀ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ

ਲੇਖ ਰਚਨਾ

ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ

**ਦੂਜੀ ਟਰਮ**

ਮੇਰੀ ਜੀਵਨ ਗਾਥਾ (ਸਵੈ-ਜੀਵਨੀ: ਡਾ. ਦੀਵਾਨ ਸਿੰਘ (ਵਾਰਤਕ ਸ਼ੈਲੀ)

ਫ਼ਾਸਲੇ (ਨਾਟਕ): ਜਤਿੰਦਰ ਬਰਾੜ (ਨਾਟਕ ਕਲਾ)

ਵਿਆਕਰਣ

ਸ਼ਬਦ ਜੋੜਾਂ ਦੇ ਨਿਯਮ

ਲੇਖ ਰਚਨਾ

ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ

**Submitted By:**  
Dr. Baljinder Kaur  
Asst. Prof. in Punjabi

**ਪੰਜਾਬ ਦਾ ਇਤਿਹਾਸ ਤੇ ਸੱਭਿਆਚਾਰ**

**ਪਹਿਲੀ ਟਰਮ**

**ਸਿੱਖ ਧਰਮ ਦੀ ਸਥਾਪਨਾ:** ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦਾ ਜੀਵਨ ਤੇ ਉਪਦੇਸ਼ (1469-1539): ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦਾ ਜੀਵਨ, ਰੱਬ ਸਬੰਧੀ ਵਿਚਾਰ, ਗੁਰੂ ਦਾ ਮਹੱਤਵ, ਸਿੱਖਿਆਵਾਂ। ਸੰਗਤ- ਪੰਗਤ।

**ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ:** ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ (1539-1552): ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ ਦਾ ਸਿੱਖ ਧਰਮ ਦੇ ਵਿਕਾਸ ਵਿੱਚ ਯੋਗਦਾਨ।

**ਗੁਰੂ ਅਮਰਦਾਸ ਤੋਂ ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਤੱਕ (1552-1581):** ਗੁਰੂ ਅਮਰਦਾਸ ਜੀ ਦਾ ਸਿੱਖ ਧਰਮ ਦੇ ਵਿਕਾਸ ਵਿੱਚ ਯੋਗਦਾਨ: ਗੋਇੰਦਵਾਲ ਸਾਹਿਬ ਦੀ ਸਥਾਪਨਾ, ਮੰਜੀ ਪ੍ਰਥਾ ਅਤੇ ਸਮਾਜਿਕ ਸੁਧਾਰ।

**ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦੇ ਸਮੇਂ ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ (1581-1606):** ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦਾ ਯੋਗਦਾਨ, ਹਰਿਮੰਦਰ ਸਾਹਿਬ ਦਾ ਨਿਰਮਾਣ।

**ਦੂਜੀ ਟਰਮ**

**ਸਿੱਖ ਧਰਮ ਦੀ ਸਥਾਪਨਾ:** ਗੁਰਗੱਦੀ ਦੀ ਸਥਾਪਨਾ ਇਸ ਦਾ ਸਮਾਜ ਤੇ ਪ੍ਰਭਾਵ।

**ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ:** ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ (1539-1552): ਗੁਰਮੁੱਖੀ ਲਿੱਪੀ।

**ਗੁਰੂ ਅਮਰਦਾਸ ਤੋਂ ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਤੱਕ (1552-1581):** ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਦਾ ਯੋਗਦਾਨ, ਰਾਮਦਾਸਪੁਰਾ ਦੀ ਸਥਾਪਨਾ, ਮਸੰਦ ਪ੍ਰਥਾ।

**ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦੇ ਸਮੇਂ ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ (1581-1606):** ਆਦਿ ਗ੍ਰੰਥ ਸਾਹਿਬ ਦਾ ਸੰਕਲਨ, ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦੀ ਸ਼ਹਾਦਤ ਤੇ ਇਸਦਾ ਮਹੱਤਵ।

**Submitted By:**  
Dr. Baljinder Kaur  
Asst. Prof. in Punjabi



## **Bachelor of Business Administration (Semester – IV)**

### **TERM-1**

**Finance & Financial Management:** Meaning and nature; *Financial goal-profit vs. wealth maximization (ICT)*; Finance functions-investment, Financing, Liquidity and dividend decisions. *Theories of capitalization (ICT)*.

**Capital Structure Theories:** Conceptual framework. Determinants. Net income approach, Net operating income approach, Intermediary approach and M.M. approach.

**Cost of Capital:** *Meaning and significance of cost of capital (ICT)*; Calculation of cost of debt, Preference capital, Equity capital and retained earnings; Combined cost of capital.

Sources of finance: Long term and short term.

**Capital Budgeting:** *Nature of investment decisions (ICT)*; Investment evaluation criteria on-discounted cash flow criteria, Discounted cash flow criteria; Risk analysis in capital budgeting.

**Dividend Policies:** Issues in dividend decisions. Forms of dividends; *Theories of relevance and irrelevance of dividends (ICT)*.

**Operating and Financial Leverage:** Measurement of leverages; Financial and operating leverage, combined leverage.

### **TERM-2**

**Management of Working Capital:** Meaning, *Significance and types of working capital; Approaches of working capital (ICT)*.

**Submitted By:**

Ms. Manpreet Kaur

Asst. Prof. in Commerce

### **Books Recommended**

- i. Gupta, S.K., Sharma, R.K., Gupta, N. (2019) Financial Management, Ludhiana, Punjab: Kalyani Publishers
- ii. Pandey, I.M. Financial Management, Noida, Vikas Publishing House Pvt. Ltd.

### **BBA-404**

## **PRODUCTION AND OPERATIONS MANAGEMENT**

## **Bachelor of Business Administration (Semester – IV)**

### **TERM-1**

**Introduction:** - Concept of Production & Operations management, Market Analysis, Competitive Priorities and capabilities. New Product Design and development. Plant location, Scheduling for Manufacturing Systems: Production Scheduling Techniques – Sequencing. Gantt. Charts. Network Analysis.

**Productivity:** Concept and Importance, Factors Affecting Productivity, Methods to improve productivity. Value Analysis.

**Work study:** Methods Analysis – Various Charts, Principles of Motion Economy. Work Measurement.

**Inventory Management:** Concept and Classification of Inventory, Relevant Costs for

**Inventory Decisions:** - Inventory Control Models, Reorder level, Lead Time and Safety Stock.

**Supply Chain Management (ICT):** Concept & Components of Supply Chain, Activities in Supply Chain Management, Logistics Management.

### **TERM-2**

Plant layout, Economic Batch Quantity with Joint Production Runs

**Quality Issues (ICT):** Concept of Quality and Total Quality Management, Statistical Quality Control. Just in Time Manufacturing Systems.

**Submitted By:**

Ms. Amandeep Kaur  
Asst. Prof. in Commerce

### **Books Recommended**

- i. Nanda, S., Pandhi, N. (2019) Productions and Operations Management, Ludhiana, Punjab: Kalyani Publications
- ii. Gupta, N., Sharma, A., Gupta, A. (2014) Productions and Operations Management, Ludhiana, Punjab: Kalyani Publications

## **BBA- 405 BUSINESS ENVIRONMENT**

### **TERM-1**

## **Bachelor of Business Administration (Semester – IV)**

The Concept, Nature and Significance of business environment. Influence of environmental factors like economic, political, legal, social, technological and International upon business. The relationship of various environmental forces on business. The need for environmental analysis and diagnosis. Description of environmental analysis. Techniques for environmental analysis, the role of business manager in analysis and diagnosis of environment. The process of environmental scanning and its importance. Environmental Threats and Opportunity Profile (ETOP) and SWOT analysis of some important industries. Aspects of

Economic Reforms: Liberalisation; *Privatisation (ICT)*; *Globalisation (ICT)* and its Implications for India. The Social responsibility of business, social audit, business ethics & corporate governance Deficit Financing and its implications for the Indian Economy; Disinvestment of Public Enterprises: Rationale; Objectives and Implications.

### **TERM-2**

Economic Planning in India: objectives, Strategies and Evaluation of Xth plan and Strategy and priorities of XIth plan. Analysis of *Current Annual Budget (ICT)*. *Fiscal and Monetary Policy (ICT)* Changes in India, Salient Features of FEMA.

#### **Submitted By:**

Ms. Harpreet Kaur Uppal  
Asst. Prof. in Economics

#### **Submitted By:**

Mrs. Harpreet Kaur  
Asst. Prof. in Commerce

#### **Books Recommended**

- i. Ruddar Dutt and KPM Sundharam, “Indian Economy”, S. Chand and Company Ltd., New Delhi,
- ii. Paul Justin, “Business Environment – Text and Cases”, Tata McGraw Hills Pvt. Ltd., New Delhi
- iii. Sandhu, D., Rashpal. (2013), Business Environment, Jalandhar, Punjab, Sharma Publications
- iv. Sandhu, R.S., Business Environment, Jalandhar, Punjab, Sharma Publication

## **Bachelor of Business Administration (Semester – IV)**

### **TERM-1**

**Operations Research: *Meaning, significance and scope (ICT)*.** Introduction to linear programming, formation of Linear Programming Problem, Graphical method Simplex Method, Two Phase Simplex Method. Duality in Linear Programming, Definition of Dual Problem, general rules of converting primal into its dual. Transportation Problem, Assignment Problem

### **TERM-2**

**CPM/PERT-**Basic concepts of Network Models, Preparation of the Network diagram, project duration and critical path, probability of Project completion.

**Games Theory:** Two persons zero sum games, pure strategies, mixed strategies, Dominance.

***Inventory-Types (ICT)*,** Nature and classification Economic lot size models, quantity discounts.

### **Submitted By:**

Ms. Ramya and Ms. Rimmy Chhabra  
Asst. Prof. in Commerce

### **Books Recommended**

- i. Chawla, K.K., Gupta, V., Sharma, B.K. (2018) Operations Research, Ludhiana, Punjab: Kalayani Publications
- ii. Hiller, F.S., Lieberman, G.J. (2006) ) Operations Research, New Delhi: McGraw Hills

### **BBA- 407**

### **FUNDAMENTALS OF INSURANCE**

### **TERM-1**

## **Bachelor of Business Administration (Semester – IV)**

***Insurance- Concept of Insurance, Need, Purpose, Principles of Insurance -Principle of Indemnity,***

***Principle of Insurable Interest, Principle of Subrogation, Principle of Utmost Good Faith, Principle of Proximate Cause, Principle of Contribution(ICT).***

***Reforms In Indian Insurance Sector (ICT)***-meaning, need and its Implications

***Legal Framework- Insurance Act 1938, LIC Act 1956, GIC Act 1972 and IRDA 1999 (ICT)***

An overview of Insurance Industry- Types of Insurance –Life Insurance, Marine Insurance, Motor Vehicle Insurance, Health Insurance, Liability Insurance.

***Underwriting*** -Meaning, Purpose and Process of Underwriting

***Reinsurance-Meaning, Features of reinsurance, difference between reinsurance and double insurance (ICT)***, Essentials of Reinsurance Programs as per IRDA.

Distribution Channels in Insurance- Role and Code of Conduct by IRDA for Agents, Direct Marketing

### **TERM-2**

***Bancassurance (ICT)*** and Brokers

Insurance Specialists- Underwriters, Surveyors and Loss Assessors, Actuaries, ***Third Party Administrators(ICT)***.

**Submitted By:**

Ms. Twinkle

Asst. Prof. in Commerce

### **Books Recommended**

- i. Singh, J., Marwaha, R., Mahajan, R. (2017) Fundamentals of Insurance, Ludhiana, Punjab; Kalyani Publications
- ii. Sharma, R., Chawla, P. (2014) Fundamentals of Insurance, Jalandhar, Punjab: Sharma Publications
- iii. Gupta, P.K. (2013) Fundamentals of Insurance, New Delhi: Himalaya Publishing House

## **Bachelor of Business Administration (Semester – IV)**

### **ENVIRONMENTAL STUDIES**

#### **TERM-1**

##### **The multidisciplinary nature of environmental studies**

Definition, scope and importance, Need for public awareness

##### **Natural Resources: Renewable and non-renewable resources:**

Natural resources and associated problems.

(a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

(b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

(c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

(d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

(e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.

(f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles.

##### **Ecosystems**

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

##### **Biodiversity and its conservation**

- Introduction – Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

##### **Human Population and the Environment**

- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health

## **Bachelor of Business Administration (Semester – IV)**

- Human Rights
- Value Education
- HIV / AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

### **TERM-2**

#### **Environmental Pollution :**

##### **Definition :**

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

##### **Social Issues and the Environment**

- From unsustainable to sustainable development
- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

##### **Field Work**

- Visit to a local area to document environmental assets River / forest / grassland / hill / mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc.

**Submitted by:**

Rupinder Kaur

Asst. Prof. in Environmental Studies

**TERM-1**

**Texts Prescribed:**

1. *The English Teacher* by R.K. Narayan(chapters 1-5)
2. *Glimpses of Theatre: Plays*
  - i. The will
  - ii. Villa for sale
  - iii. Progress
  - iv. Sorry Wrong Number
3. Essay Writing

**TERM-2**

*The English Teacher* by R.K. Narayan (chapters 6-8)

*Glimpses of Theatre: Play*

- i. *The Monkey's Paw (ICT)*

**Submitted By:**

Mrs. Deep

Asst. Prof. in English



**BBA- 602**

ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)

**ਪਹਿਲੀ ਟਰਮ**

ਕਾਵਿ ਗੌਰਵ

(ਸੰਪਾ. ਬਿਕਰਮ ਸਿੰਘ ਘੁੰਮਣ, ਕਰਮਜੀਤ ਕੌਰ),

ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ,

(ਸ਼ੇਖ ਫਰੀਦ, ਸ਼ਾਹ ਹੁਸੈਨ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ, ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ

ਧਰਤੀਆਂ ਦੇ ਗੀਤ (ਸਫ਼ਰਨਾਮਾ), ਬਰਜਿੰਦਰ ਸਿੰਘ ਹਮਦਰਦ,

ਨਾਨਕ ਸਿੰਘ ਪੁਸਤਕਮਾਲਾ, ਅੰਮ੍ਰਿਤਸਰ

(ਸਮਾਜ ਸੱਭਿਆਚਾਰਕ ਪਿਰਪੇਖ/ ਸਫ਼ਰਨਾਮੇ ਦੇ ਤੌਰ ਤੇ)

ਲੇਖ ਰਚਨਾ (ਵਿਦਿਅਕ ਅਤੇ ਸਭਿਆਚਾਰਕ ਵਿਸ਼ਿਆਂ ਬਾਰੇ)

ਸੰਖੇਪ ਰਚਨਾ

ਵਿਆਕਰਣ :

ਪੰਜਾਬੀ ਧੁਨੀ ਵਿਉਂਤ

ਕਿਰਿਆ ਵਾਕਾਂਸ਼ : ਪਰਿਭਾਸ਼ਾ, ਬਣਤਰ ਤੇ ਪ੍ਰਕਾਰ

**ਦੂਜੀ ਟਰਮ**

ਕਾਵਿ ਗੌਰਵ

ਵਾਰਿਸ ਸ਼ਾਹ, ਸ਼ਾਹ ਮੁਹੰਮਦ

ਕਾਰਕ ਅਤੇ ਕਾਰਕੀ ਸਬੰਧ

**Submitted By:**

Harpreet Kaur

Asst. Prof. in Punjabi

**ਮੁੱਢਲੀ ਪੰਜਾਬੀ**  
**(ਪੰਜਾਬ ਦਾ ਇਤਿਹਾਸ ਤੇ ਸੱਭਿਆਚਾਰ)**

**ਰਣਜੀਤ ਸਿੰਘ ਅਧੀਨ ਪੰਜਾਬ ਦਾ ਏਕੀਕਰਨ ਅਤੇ ਵਿਸਥਾਰ :-** 1790 ਵਿੱਚ ਪੰਜਾਬ ਦੇ ਰਾਜਨੀਤਿਕ ਹਾਲਾਤ, ਰਣਜੀਤ ਸਿੰਘ ਦਾ ਜੀਵਨ ਅਤੇ ਜਿੱਤਾਂ, ਅੰਮ੍ਰਿਤਸਰ ਦੀ ਸੰਧੀ, ਰਣਜੀਤ ਸਿੰਘ ਦੇ ਅੰਗਰੇਜ਼ਾਂ ਨਾਲ ਸਬੰਧ , ਸੈਨਿਕ ਪ੍ਰਬੰਧ, ਪੰਜਾਬ ਦਾ ਮਿਲਾਨ ਬ੍ਰਿਟਿਸ਼ ਰਾਜ ਵਿੱਚ ।

**ਵੰਡ ਅਤੇ ਸੁਤੰਤਰਤਾ :-** ਜਲਿਆਵਾਲਾ ਬਾਗ ਹੱਤਿਆਕਾਂਡ, ਅਸਹਿਯੋਗ ਅੰਦੋਲਨ, ਨੌਜਵਾਨ ਭਾਰਤ ਸਭਾ, ਸਿਵਲ ਨਾ ਫੁਰਮਾਨੀ ਅੰਦੋਲਨ, ਭਾਰਤ ਛੱਡੋ ਅੰਦੋਲਨ, ਮਹਾਨ ਸੁਤੰਤਰਤਾ ਸੈਨਾਨੀਆਂ ਦਾ ਯੋਗਦਾਨਲਾਲਾ ਲਾਜਪਤ ਰਾਏ ,ਮਾਸਟਰ ਤਾਰਾ ਸਿੰਘ ਸ.ਕਰਤਾਰ ਸਿੰਘ ਸਰਾਭਾ , ਸ. ਭਗਤ ਸਿੰਘ ਸ.ਊਧਮ ਸਿੰਘ, ਸ. ਖੜਕ ਸਿੰਘ

**ਰਾਜਨੀਤਿਕ ਜਾਗ੍ਰਿਤੀ ਅਤੇ ਸਮਾਜਿਕ-ਧਾਰਮਿਕ ਸੁਧਾਰ ਅੰਦੋਲਨ :-** 1857 ਦਾ ਵਿਦਰੋਹ ਅਤੇ ਪੰਜਾਬ, ਕੂਕਾ ਅੰਦੋਲਨ, ਗਦਰ ਅੰਦੋਲਨ, ਆਰੀਆ ਸਮਾਜ, ਨਿਰੰਕਾਰੀ ਤੇ ਨਾਮਧਾਰੀ, ਸਿੰਘ ਸਭਾ ਅੰਦੋਲਨ, ਗੁਰਦੁਆਰਾ ਸੁਧਾਰ ਅੰਦੋਲਨ ਅਤੇ ਅਕਾਲੀ।

**Submitted By:**  
Dr. Baljinder Kaur  
Asst. Prof. in Punjabi

**BBA-603 INCOME TAX**

**TERM-1**

**Basic concepts (ICT):** Income, Person, Assessee, Assessment Year, Previous Year, Gross Total Income, Total Income. **Residential Status Tax Incidence (ICT)** and Residential Status Exempted income under section 10(1), 10(2), 10(2A), 10(5), 10(7), 10(10), 10(10A), 10(10AA), 10(10B), 10(10D), 10(11), 10(12), 10(13), 10(13A), 10(14), 10(16), 10(32), 10(34), 10(35), 10(36), 10(37), 10(38).

**Computation of income under different heads Salaries, Income from house property Profits and gains of business or profession. Sections to be covered are: Sec-28, 29, 30, 31, 32, 35, 36, 37, 40(a), 40(b), 40A, 43B, 44AA, 44AB, 44AD and 44AE (ICT).**

**Capital Gains: Basis of Charge. Meaning of capital assets. Classification of capital assets and their tax implication. Meaning of Transfer; Elementary Knowledge of Transactions not to be Treated as Transaction of Transfer. Computation of Capital Gains( Depreciable and Non- Depreciable Assets) Special cases to be covered - Conversion of Capital assets into stock in Trade; Compulsory acquisition of assets; Self generated assets; Transfer of bonus shares. Exemptions to be covered: Sec 54, 54B, 54EC, 54F, 54H (ICT).**

Computation of tax liability under section 111A and 112 Capital gain provisions related to Individual and Firm need to be covered. Income from other sources [excluding Sec-2(22)] Computation of Total Income and Tax Liability of an individual.

Clubbing of income and Aggregation of income and set-off and carry forward of losses (excluding Sec-94(7) and 94(8))

**Deductions from Gross Total Income; Section 80A, 80AB, 80AC, 80C, 80CCC, 80CCD, 80CCG, 80D, 80DD, 80DDB, 80E, 80G, 80GG, 80GGA, 80GGC, 80TTA and 80U (ICT).**

**TERM-2**

Agricultural Income

Computation of total income and tax liability of individuals and firms.

Submitted By:  
Mrs. Dilpreet Kaur  
Asst. Prof. in Commerce

**Books Recommended**

- i. Ahuja, Girish (2020), Income Tax, New Delhi: Bharat Law Publications
- ii. Malhotra, H.C (2020) Income Tax Law & accounts, Agra: Sahitya Bhawan Publications
- iii. Gaur, V.P, Puri, R. (2020) Income Tax, Ludhiana, Punjab: Kalayni Publications

**TERM-1**

Introduction-evolution, structure, functions, objectives and importance of capital market in India.

Components of capital market- introduction to New issue market, stock market, financial institutions

Instruments in capital market-Shares (Equity and Preference), Warrants, Bonds and its types, GDRs, ADRs, ETFs, Mutual Funds, Derivatives (forwards, futures and options).

Participants in Capital Market

Difference between Capital Market and Money Market.

Stock Exchanges-Stock Exchanges in India, Organisation, Management, Membership, rules of stock exchange, operators at stock exchanges SEBI guidelines on Stock Exchange, weaknesses of stock exchange in India

**TERM-2**

Listing of securities-requirement for listing, objectives of listing, advantages of listing, *Security Market Indices-Uses of Security Market Indices, Types of Indices, Differentiating Factors in constructing Market Indices (ICT).*

**Submitted By:**

Ms. Harleen Kaur

Asst. Prof. in Commerce

**Books Recommended**

i. Fundamentals of Capital Marketing by Dr. Neeraj Maini, Pooja Chawla, Amandeep Singh, Kalyani Publishers.

i. Indian Financial System by Bharati V. Pathak, Pearson Education

ii. Fundamentals of Capital Marketing by Mukehs Mahajan, Kalyani Publishers

iii. Indian Financial System by MY Khan, Tata McGraw Hill Publishing Company Ltd

**TERM-1**

**Evolution and Understanding of Services Marketing:** Conceptual Framework, Service Defined, Nature of services; *Characteristics of services- Intangibility, Inconsistency, Inseparability and inventory. Classification of Services; Consumer versus Industrial (ICT)* Services, Importance of Services Marketing in Indian Economy & Global Scenario  
**Service Marketing Mix:** Introduction to the 7Ps ( 4 Ps + Extended 3 Ps)of Services Marketing Mix. Services Marketing Mix (4Ps):

**Product Service Mix:-** introduction, Transition from Product Marketing from Service Marketing, *Differentiating goods from service, categories of service mix. Goods- Services marketing continuum (ICT).*

**Price:** Factors involved in pricing a service product, capacity planning, measures to respond to change in demand, Reshaping demand using effective pricing.

**Place:** Distribution Strategies, Challenges in distribution of services, *Role of internet in distribution (ICT).*

**Promotion:** Objectives, *Personal Selling (ICT)*, Advertising & Sales Promotion. Extended 3 Ps of Service Marketing Mix

**People:** Role of service employees in service business, training & development of employees, Motivation and Empowerment.

**TERM-2**

**Process:** *Services as process or system (ICT)*- different process aspects and managerial challenges, strategies for managing inconsistency, customer service in service marketing.

**Physical Evidence:** *nature, importance, service scapes (ICT).*

**Services Marketing Implementation:** Services Marketing Triangle, Servqual Model Rater, *PZB Gap Model (ICT).*

**Submitted By:**

Ms. Rimmy Chhabra  
Asst. Prof. in Commerce

**Books Recommended**

- i. Kaur, A., Bansal, G. (2015) Services Marketing, Ludhiana, Punjab: Kalyani Publications
- ii. Wirtz, J., Lovelock, C., Chatterjee, J. (2018) Services Marketing, Nodia, Uttar Pradesh: Pearson

**TERM-1**

Introduction: Concept, nature and importance of e-marketing; E-marketing versus traditional marketing; Issues, challenges and opportunities for e-marketing; Reasons for growth of e-marketing; ***Tools and techniques (ICT)*** of e-marketing—advantages and disadvantages; e-marketing situations. E-Marketing Management: ***Segmentation, targeting and positioning (ICT)***; E-marketing mix; E-marketing and customer relationship management – concept and scope; E-customers and their buying process; E-marketing and customer loyalty and satisfaction; Communities and social networks.

Internet Marketing: Concept and role of internet marketing; Search engine optimization – functions, type of traffic, keywords and steps in search engine optimization; Internet advertising – types and tracking ROI; Online PR, News and Reputation Management; Direct marketing –scope and growth; E-mail marketing; ***Social Media Marketing (ICT)***: Concept and tools;

**TERM-2**

Blogging – benefits, types; Video-marketing for business purpose – tools and techniques; Pay per click marketing; Issues and challenges. ***E-payment systems (ICT)***: Payment gateways; use of Debit and credit cards; Mobile Marketing Trends and terminologies; Benefits and applications of mobile and smart phone applications; M-commerce.

**Submitted By:**

Mrs. Monica Chhabra

Asst. Prof. in Commerce

**Books Recommended**

- i. Vachhani, N., Singh, R., Bhati, P. (2020) E-Marketing, Ludhiana, Punjab: Kalyani Publications
- ii. Kumar, S. Prakash, J. (2019) E-Marketing, Ludhiana, Punjab: Kalyani Publications
- iii. Sandhu, R.S., Soni, N. (2016) E-Marketing, Jalandhar, Punjab: Sharma Publications
- iv. Gupta, N., Kaur, M. (2016) E-Marketing, Ludhiana, Punjab: Kalyani Publications

Paper–I: INTRODUCTION TO PROGRAMMING - C++

TERM-1

**Programming Paradigms:**

*Introduction to the object oriented approach (ICT)* towards programming by discussing Traditional, Structured Programming methodology.

**Objects & Classes:**

Object Definition, Instance, Encapsulation, Data Hiding, Abstraction, Inheritance, Messages, Method, Polymorphism, Classes, Candidate & Abstract Classes to be examples of the Design process.

**Object Oriented Programming using C++:**

Characteristics of OOP, Overview of C++, I/O using cout and cin, Objects and Classes, Member functions and data, private & public, constructor & destructor, **Constructor Overloading**, *Types of Constructors (ICT)*.

**Function Overloading:**

*Function Overloading (ICT)*, Default Arguments, Ambiguity in Function Overloading.

TERM-2

**Operator Overloading:**

Overloading *unary and binary operators (ICT)*, Type Conversion using Operator Overloading

**Inheritance:**

Concept of *inheritance, Base & derived classes (ICT)*, Access Specifiers, Class Hierarchies, Types of Inheritance with examples.

**Virtual Functions and Polymorphism:**

Virtual functions, *friend functions (ICT)*, static function, this pointer, polymorphism, Types of Polymorphism with examples, templates, class templates.

**Submitted by:**

Mrs. Ashmeet Kaur

Asst. Prof. in Computer Science

**Books Recommended**

- i. Lafore, Robert (2003). Oriented Programming in Turbo C++: Galgotia Publication
- ii. Balaguruswamy, E. (2002). Programming in C++: Tata Mcgraw Hill Education
- iii. Ravishankar, Venugopal, K.R., Rajkumar, T. (1996). Mastering in C++: Tata Mcgraw Hill Education
- iv. Sharma, Anshuman (2010). Learning Programming in C++: Lakhanpal Publishers

Paper–II: PRINCIPLES OF DIGITAL ELECTRONICS

TERM-1

**Number System:**

Introduction, *number conversion system (ICT)* , binary arithmetic, representation of signed binary numbers, 1's and 2's complement, Codes: straight binary code, *BCD Code (ICT)* Excess3 Code, Grey Code ASCII, Integer and floating point representation

**Logic Gates and Boolean algebra:**

*Logic gates (ICT)*, Universal Gates, Boolean algebra and Minimization techniques, canonical forms of Boolean expressions, *K-Map(ICT)*.

**Combinational Circuits:**

Adder, Subtractor, *Multiplexer (ICT)*, *Demultiplexer (ICT)*, Decoder, Encoder

**Sequential Circuits:** *Flip-flops (ICT)*, clocks and timers, *registers (ICT)*,

TERM-2

**Sequential Circuits:** Counters

**Semiconductor memories:**

Introduction, Static and dynamic devices, *read only & random access memory chips (ICT)*, PROMS and EPROMS Address selection logic. *Read and write control timing diagrams for ICs (ICT)*.

**Submitted by:**

Mrs. Monika Shahi

Asst. Prof. in Computer Science

**Books Recommended**

- i. Mano, M. Moris (1993). Digital Logic and Computer Design : Pearson
- ii. Bains, G.S. (2010). Digital Electronics: PBS Publications
- iii. Gupta, Anand (2005). Digital Electronics: Himalaya Pvt. Ltd.
- iv. Singh, Sajjan, Singh, Gurpreet (2019). Digital Electronics: Kalyani Publishers
- v. Sharma, Anshuman (2018): Digital Electronics: Lakhanpal Publishers



**Paper–III: NUMERICAL METHODS & STATISTICAL TECHNIQUES**

**TERM-1**

- **Numerical Methods (ICT)**, Numerical methods versus numerical analysis, Errors and Measures of Errors.
- Non-linear Equations, Iterative Solutions, Multiple roots and other difficulties, Interpolation methods, **Methods of bi-section (ICT)**, False position method, Newton Raphson – Method.
- Simultaneous Solution of Equations, Gauss Elimination Method Gauss Jordan Method.
- Statistical Techniques: Measure of Central Tendency, **Mean Arithmetic (ICT)**, Mean geometric, Mean harmonic, Mean, **Median (ICT)**, Mode.
- Measures of dispersion, Mean deviation, Standard deviation, Co-efficient of variation.

**TERM-2**

- Numerical Integration and different **Trapezoidal Rule (ICT)**, Simpson's 3/8 Rule.
- Interpolation and Curve Fitting, **Lagrangian Polynomials (ICT)**, Newton's Methods: Forward Difference Method, Backward Difference Method Divided Difference Method.
- Correlation.
- **Least square fit linear trend (ICT)**, Non-linear trend.  
$$Y = ax^b$$
$$Y = ab^x$$
$$Y = ae^x$$
- Polynomial fit:  $Y = a+bx+cx^2$  (ICT)

**Submitted by:**

Mrs. Isha Arora

Asst. Prof. in Computer Science

**Books Recommended**

- i. Anand, Neeraj (2009). Computer Oriented Numerical Methods and Statistical Techniques in Engineering and Sciences: Anand Technical Publishers
- ii. Grewal, B.S. (2015). Numerical Methods in Engineering and Science: Khanna Publishers
- iii. Salaria, R.S. (2005). Computer Oriented Numerical Methods: Khanna Book Publishing Co. Pvt. Ltd.
- iv. Singh, Manohar (2009). Computer Oriented Numerical Methods and Statistical Techniques: New Academic Publishing Co.
- v. Rangi, S.S., Kaur, Sukhwinder (2007). Numerical Methods and Statistical Techniques: S. Vikas & Co.

## **Bachelor of Computer Applications (Semester – II)**

### **PAPER–V: COMMUNICATION SKILLS IN ENGLISH – II**

#### **TERM-1**

Listening Skills: Barriers to listening; effective listening skills; feedback skills.

**Activities:** *Listening exercises (ICT)* – Listening to conversation, News and TV reports  
Attending telephone calls; note taking and note making.

**Activities:** Taking notes on a speech/lecture, *The study of sounds of English (ICT)*, Stress and Intonation, Situation based Conversation in English, Essentials of Spoken English.  
Activities: Giving Interviews

#### **TERM 2**

Speaking and Conversational Skills: Components of a meaningful and easy conversation; understanding the cue and making appropriate responses; forms of polite speech; asking and providing information on general topics.

Activities:

- 1) Making conversation and taking turns
- 2) Oral description or explanation of a common object, situation or concept

**Submitted by:**

Ms. Deepika Khanna  
Asst. Prof. in English

#### **Books Recommended**

- i. Pioneer Communications Skills

**PAPER–VI: ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)**

**ਪਹਿਲੀ ਟਰਮ**

ਆਤਮ ਅਨਾਤਮ (ਕਹਾਣੀ ਭਾਗ) (1-7)  
(ਵਿਸ਼ਾ-ਵਸਤੂ, ਪਾਤਰ ਚਿਤਰਨ)

ਇਤਿਹਾਸਕ ਯਾਦਾਂ (ਇਤਿਹਾਸਕ ਲੇਖ-ਸੰਗ੍ਰਹਿ) (7-10)  
(ਸਾਰ, ਲਿਖਣ ਸ਼ੈਲੀ)

ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁੱਢਲੇ ਸੰਕਲਪ

ਸੰਖੇਪ ਰਚਨਾ  
ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

**ਦੂਸਰੀ ਟਰਮ**

ਆਤਮ ਅਨਾਤਮ (ਕਹਾਣੀ ਭਾਗ) (8-10)  
(ਵਿਸ਼ਾ-ਵਸਤੂ, ਪਾਤਰ ਚਿਤਰਨ)

ਇਤਿਹਾਸਕ ਯਾਦਾਂ (ਇਤਿਹਾਸਕ ਲੇਖ-ਸੰਗ੍ਰਹਿ) (11-12)  
(ਸਾਰ, ਲਿਖਣ ਸ਼ੈਲੀ)

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ

Submitted by:  
Ms. Harpreet Kaur  
Asst. Prof. in Punjabi

**PAPER – VII: DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION  
(COMPULSORY PAPER)**

**DRUG ABUSE: MANAGEMENT AND PREVENTION**

**TERM-1**

**Prevention of Drug abuse:**

Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.

**School:** Counselling, Teacher as role-model. Parent-teacher Health Professional Coordination, Random testing on students.

**Controlling Drug Abuse:**

Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs.

**TERM-2**

Publicity and media, Campaigns against drug abuse, Educational and awareness program  
Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

**Submitted by:**

Mrs. Rupinder Kaur

Asst. Prof. in Environmental Studies

**Paper – I: DATA STRUCTURES AND FILE PROCESSING**

**TERM-1**

Basic Data Structures: Introduction to elementary Data Organization and operations, complexity of Algorithms and Time space trade off, string processing. *Arrays, Stacks (ICT)*, Queues, Linked Lists,

File Organization: *Concept of field, record, file (ICT)*, blocking and compaction.

File Organization Techniques: *Sequential, indexed, indexed sequential (ICT)*, Direct, Hashing. Concept of master and transaction files.

**TERM-2**

Trees Binary Trees & Binary Search Trees. Graphs and Algorithms to manipulate them. Searching Techniques: *Linear and Binary Search (ICT)*.

Sorting Techniques: *Bubble Sort (ICT)*, Selection Sort, Insertion Sort, Quick Sort, *Merge Sort (ICT)*, Heap Sort.

**Submitted by:**

Mrs. Ashmeet Kaur  
Asst. Prof. in Computer Science

**Books Recommended**

- i. Lipshutz, Seymour (2017). Data Structures: McGraw Hill Education (India) Pvt. Ltd.
- ii. Leung, Tondo (2001). Data Structure and Program Design: McGraw Hill Education (India) Pvt. Ltd.
- iii. Salaria, R.S. (Third Edition). Data Structure and Algorithms using C++: Khanna Book Publishing

***Bachelor of Computer Applications (Semester – IV)***

**Paper – II: INFORMATION SYSTEMS**

**TERM-1**

Fundamental aspects of Information, Capturing of Information, Converting Information to Computer – readable form, *source of Information, on-line Information access and capture (ICT)*. What are systems? Information Systems? *Categories of Information Systems, Development Life Cycle of Information system (ICT)*.

Technologies for Information System: Latest trends in Hardware and Software.

**TERM-2**

Various types of information systems: Transaction processing systems, office Automation systems, *MIS and decision support system (ICT)*.

Case studies of the Information System: *Accounting Information systems, Inventory control systems (ICT)* & Marketing systems

**Submitted by:**

Mrs. Pooja Monga

Asst. Prof. in Computer Science

**Books Recommended**

- i. Jindal, Aman (2014). Information System: Kalyani Publishers
- ii. Sharma, Anshuman (2016). Information Technology: Lakhanpal Publishers
- iii. Singh, Manohar (2018). Information System : Unimax Publishers
- iv. Awad (2014): System Analysis and Design : Galgotia Publications

## ***Bachelor of Computer Applications (Semester – IV)***

### **Paper – III: INTERNET APPLICATIONS**

#### **TERM-1**

Introduction: About *internet and its working (ICT)*, business use of internet, services offered by internet, evaluation of internet, internet service provider (ISP), windows environment for dial up networking (connecting to internet), internet addressing (DNS) and IP addresses).

***E-Mail (ICT)*** Basic Introduction; Advantage and disadvantage, structure of an e-mail message, working of e-mail (sending and receiving messages), Internet Protocol: Introduction, ***file transfer protocol (FTP) (ICT)***, Telnet, other protocols like HTTP and ***TCP IP (ICT)***. Managing e-mail (creating new folder, deleting messages, forwarding messages, filtering messages)

WWW: Introduction, working of WWW, Web browsing (opening, viewing, saving and printing a web page and bookmark), web designing using HTML,

#### **TERM-2**

DHTML with programming techniques, Gopher

Search Engine: About search engine, component of search engine, working of search engine, difference between ***search engine and web directory (ICT)***.

***Intranet and Extranet (ICT)***: Introduction, application of ***intranet (ICT)***, business value of intranet, working of intranet, role of extranet, working of extranet, difference between intranet and extranet.

**Submitted by:**

Ms. Kawaljit Kaur  
Asst. Prof. in Computer Science

#### **Books Recommended**

- i. Gupta, Anurag, Sharma, Anshuman (2011). Internet Applications: Lakhanpal Publishers
- ii. Sood, Sandeep (2011). Internet Applications
- iii. Bayross, Ivan (1996). HTML and DHTML

**Paper – IV: SYSTEM SOFTWARE**

**TERM-1**

**Introduction to System Software**

*Introduction to System Software and its components (ICT)*, Translators, loaders, interpreters, *compiler (ICT)*, assemblers

**Assemblers**

Overview of assembly process, *design of one pass (ICT)* and two assemblers

**Macro processors**

Macro definition and expansion, concatenation of macro parameters, generations of unique labels, conditional macro expansion, Recursive macro expansion

**TERM-2**

**Compilers**

*Phases of Compilation Process (ICT)*, Lexical Analysis, Parsing, Storage Management Optimization Incremental Compilers, Cross Compilers.

**Loaders and Linkage editors**

Basic loader functions. Relocation, *program linking (ICT)*, linkage, editors, *dynamic linking (ICT)*, Bootstrap loaders

**Submitted by:**

Ms. Preet Kawal Kaur  
Asst. Prof. in Computer Science

**Books Recommended**

- i. Dhamdhere, D.M. (2014). Introduction to System Software: Tata McGraw Hill
- ii. Sharma, Anshuman (2017). Fundamental of System Software: Lakhanpal Publishers
- iii. Kumar, Manish, Randhawan K.P.S. (2019). System Software : Unimax Publishers



**PAPER–VII (ESL-221): ENVIRONMENTAL STUDIES**

**TERM-1**

The multidisciplinary nature of environmental studies Definition, scope and importance, Need for public awareness Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems.

- (a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
  - (b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
  - (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
  - (d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
  - (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
  - (f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
- Role of an individual in conservation of natural resources.
  - Equitable use of resources for sustainable lifestyles.

**Ecosystems**

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

**Biodiversity and its conservation**

- Introduction – Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

**Human Population and the Environment**

- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health
- Human Rights
- Value Education

## ***Bachelor of Computer Applications (Semester – IV)***

- HIV / AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

### **TERM-2**

Environmental Pollution :

Definition :

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

Social Issues and the Environment

- From unsustainable to sustainable development
- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

Field Work

- Visit to a local area to document environmental assets River / forest / grassland / hill / mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

**Submitted by:**

Mrs. Rupinder Kaur

Asst. Prof. in Environmental Studies

## ***Bachelor of Computer Applications (Semester – VI)***

### **Paper – I: COMPUTER GRAPHICS**

#### **TERM-1**

Overview of Graphics system: ***Computer Graphics and their applications (ICT)***.

Display Devices: ***CRT Monitors (ICT)*** (Random – Scan and Raster Scan, DVST, Plasma – Panel Display, LED and LCD Monitors.

Elementary Drawing: Points and various ***line drawing Algorithms (ICT)*** and their comparisons. Circle generating algorithms, Algorithms for ellipse, arc and spiral

Two Dimensional Transformations: Basic Transformations, Scaling, Translation, Rotation, Reflection, Shear, Matrix representation of Basic transformations and homogenous coordinates. ***Composite transformations (ICT)***

3 D Coordinate Systems. 3 transformations. translation, scaling, rotation C programming for drawing 2 D objects – line rectangle, circle

#### **TERM-2**

***Graphics Software- Elements of Computer Graphics (ICT)***

Composite Transformations: Windowing and clipping. Windowing concepts, clipping and its algorithms. Window-to-view port transformations. Three Dimensional concepts. ***projections, parallel projections. Perspective projection (ICT)***.

Implementation in C: C programming for drawing 2 D objects – Arc and ellipse. C Programming for 2-D and 3-D transformations.

**Submitted by:**

Mrs. Isha Arora

Asst. Prof. in Computer Science

#### **Books Recommended**

- i. Thukral, Sunny, Singh, Yadav, Balram (2014). Computer Graphics: Chopra Publishing Co.
- ii. Singh, Charanjeet Singh (2016). Computer Graphics: Kalyani Publishers
- iii. Dawar, Amit, Khurana, Ravi (2014). Computer Graphics: Jyoti Book Depot Pvy. Ltd.
- iv. Hearn, Donald, Baker, M. Pardive (2001). Computer Graphics: Prentice Hall of India Pvt. Lrd.
- v. Plastock, A. Roy, Xiang, Zhigng (2010). Computer Graphics

## ***Bachelor of Computer Applications (Semester – VI)***

### **Paper – II: SOFTWARE ENGINEERING**

#### **TERM-1**

Introduction to Software: Definition, Software characteristics, Software components, Software Applications.

Introduction to Software Engineering: Definition, Software Engineering Paradigms, waterfall method, prototyping, interactive Enhancement, The Spiral model, Fourth Generation Technique.

***Software Metrics (ICT)***: Role of Metrics and measurement, Metrics for software productivity and quality, Measurement software, size-oriented metrics, function oriented metrics, Metrics for software quality.

Software Requirement Specification (SRS): Problem analysis, structuring information, Data flow diagram and data dictionary, structured analysis, Characteristics and component of (SRS).

Planning a Software Project: Cost estimation, uncertainties in cost estimation, Single variable model, ***COCOMO (ICT)*** model, On software size estimation, Project scheduling and milestones, Software & Personal Planning, Rayleigh curve, Personal Plan, Quality Assurance Plan, Verification & Validation (V & V), inspection & review. System Design: Design Objectives, Design Principles, problem, Partitioning, Abstraction,

Top Down and Bottom-up techniques, Structure Design, Structure Charts, Design Methodology, Design Review, Automated Cross Checking, Matrix, total number of modular, number of parameters.

#### **TERM-2**

Detailed Design: Module specification, Specifying functional module, specifying data abstraction, PDL and Logic/Algorithm Design.

Coding: Coding by Top-down and Bottom-up, Structured Programming, Information Hiding, Programming style, Internal Documentation.

***Testing: Level of testing, Test cases and test criteria, Functional Testing, Structural Testing (ICT).***

**Submitted by:**

Ms. Preet Kawal

Asst. Prof. in Computer Science

#### **Books Recommended**

- i. Pressman, S. Roggoer (2005). Software Engineering: McGraw Hill
- ii. Jalote, Pankaj (2006). Integrated Approach to Software Engineering: Narosa Publishing House
- iii. Sharma, Anshuman (2015). Fundamental of Software Engineering: Lakhanpal Publishers
- iv. Gill, N.S. (2011). Software Engineering: Khanna Book Publishing

**B.Sc. (Semester–II)**

**ENGLISH (COMPULSORY)**

**TERM-1**

Tales of Life (Stories at Sr. No. 7, 9, 10, 11)

Prose for Young Learners (Essays at Sr. No. 7, 8, 9, 10)

English Grammar in Use (Units: 49- 90) Use 4th Edition  
Personal Letter Writing

**TERM-2**

Tales of Life (Story at Sr. No. 12)

Prose for Young Learners (Essay at Sr. No. 11)  
English Grammar in Use (Units: 91- 97) Use 4th Edition  
Revision

**Submitted by:**  
Mrs. Deep  
Asst. Prof. in English

**B.Sc. (Semester-II)**

**PUNJABI COMPULSORY**

ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)

**ਪਹਿਲੀ ਟਰਮ**

ਦੋ ਰੰਗ (ਕਹਾਣੀ ਭਾਗ ਪਹਿਲੀਆਂ 8 ਕਹਾਣੀਆਂ) (ਵਿਸ਼ਾ ਵਸਤੂ/ ਸਾਰ/ ਲੇਖਕ ਦਾ ਜੀਵਨ ਤੇ ਰਚਨਾ)  
ਸੰਸਾਰ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਹਸਤੀਆਂ (ਜੀਵਨੀ ਨੰ: 10 ਤੋਂ 16 ਤੱਕ) (ਵਿਸ਼ਾ / ਸਾਰ )  
ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ-ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁਢਲੇ ਸੰਕਲਪ।  
ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ  
ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

**ਦੂਜੀ ਟਰਮ**

ਦੋ ਰੰਗ (ਕਹਾਣੀ ਭਾਗ ਪਿਛਲੀਆਂ 2 ਕਹਾਣੀਆਂ) (ਵਿਸ਼ਾ ਵਸਤੂ/ ਸਾਰ/ ਲੇਖਕ ਦਾ ਜੀਵਨ ਤੇ ਰਚਨਾ)  
ਸੰਸਾਰ ਦੀਆਂ ਪ੍ਰਸਿੱਧ ਹਸਤੀਆਂ (ਜੀਵਨੀ ਨੰ: 17 ਤੋਂ 18 ਤੱਕ)( ਵਿਸ਼ਾ / ਸਾਰ )  
ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ  
ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ  
ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

**Submitted by**  
Dr. Baljinder Kaur  
Asst. Prof. in Punjabi

**B.Sc. (Semester-II)**

**Mudhli Punjabi**

**ਪਹਿਲੀ ਟਰਮ**

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ: ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ

(ਨਾਂਵ, ਪੜਨਾਂਵ, ਕਿਰਿਆ , ਵਿਸ਼ੇਸ਼ਣ , ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ)

ਪੰਜਾਬੀ ਵਾਕ ਬਣਤਰ: ਮੁੱਢਲੀ ਜਾਣ- ਪਛਾਣ

ਸਾਧਾਰਨ ਵਾਕ, ਸੰਯੁਕਤ ਵਾਕ ਅਤੇ ਮਿਸ਼ਰਤ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਪੈਰਾਂ ਰਚਨਾ

ਚਿੱਠੀ ਪੱਤਰ (ਘਰੇਲੂ ਅਤੇ ਦਫ਼ਤਰੀ

**ਦੂਜੀ ਟਰਮ**

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ: ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ

(ਸੰਬੰਧਕ, ਯੋਜਕ ਅਤੇ ਵਿਸਮਿਕ)

ਪੰਜਾਬੀ ਵਾਕ ਬਣਤਰ: ਮੁੱਢਲੀ ਜਾਣ- ਪਛਾਣ

ਬਿਆਨੀਆ ਵਾਕ, ਪ੍ਰਸ਼ਨਵਾਚਕ ਵਾਕ ਅਤੇ ਹੁਕਮੀ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਸੰਖੇਪ ਰਚਨਾ

ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰੇ

**Submitted By:**

Dr. Baljinder Kaur

Asst. Prof. in Commerce

**B.Sc. (Semester-II)**  
**ECONOMICS**  
**MACRO ECONOMICS**

**TERM-1**

***Distinction between Micro and Macro Economics (ICT)***; Determination of Income and Employment :

Classical and Keynesian models; Say's Law of Market and aggregate demand and aggregate supply.

***Consumption functions; average (short-run and long run) and marginal propensity to consume (ICT)***; static and dynamic multipliers.

**Investment: *Meaning, Demand schedules and factors affecting investment decision(ICT)***, Marginal Efficiency of Capital. Accelerator, multiplier-accelerator interaction.

**Inflation: *Concept, Causes and cures(ICT)***. Inflation-unemployment Trade-off (only Phillips' contribution).

**Macroeconomic Policies:** Fiscal policy – meaning, objectives and instruments. ***Monetary policy – meaning, objectives and instruments(ICT)***.

**TERM-2**

***Trade cycles-meaning, characteristics and phases (ICT)***. Samuelson and Hicks Models of trade cycles.

**Money:** Its functions and role. ***Money and Capital Markets (Introductory) (ICT)***. Quantity Theory of Money. Fisher's and Cambridge's equations. Liquidity preference theory.

**Banking:** Definitions of banks. Credit creation and credit control.

Submitted by  
Dr. Moninder Kaur  
Asst. Prof. in Economics

**Books Recommended**

- i. Jain, T.R. Macro Economics, (2016), VK Global Publications, New Delhi
- ii. Jhingan, M.L. “ Macro Economics Theory”, 13<sup>th</sup> edition (2018), Vrinda Publications, New Delhi



**B.Sc. (Semester-II)**

**QUANTITATIVE TECHNIQUES-II**

**TERM-1**

**Statistics:**

*Definition, Scope in Economics, Significance, Limitations (ICT).*

**Concepts and Measures of Central Tendency:**

*Mean, Median (ICT)* and Mode; Concepts and Measures of Relative Dispersion; Concepts and Measures of Skewness and Kurtosis (Stress on numerical examples).

**Correlation Analysis:**

Introduction, Importance, Karl-Pearson's Coefficient of Correlation, *Spearman's Rank Correlation Coefficient (ICT)*, Simple Regression Analysis; Difference between Correlation and *Regression (ICT)*, Lines of Regression, Properties of Correlation and Regression Coefficients (Stress on numerical examples).

**Index Numbers:**

*Concept of Index Number (ICT)*, Purpose Construction & Problems, Laspeyre, Paasche and Fisher's Formulae, *Tests of Consistency (ICT)*.

**TERM-2**

Tabulation, Classification and *Graphical representation of data (ICT)*, (Pie Chart, Bar Diagram, Histogram, Frequency Polygon, Ogive Curve, etc.).

**Analysis of Time Series:** Definition, Components of Time Series, Measurement of Trend by different methods, Measurement of Seasonal Variations (through ratio to move average method); stress on examples.

**Submitted by:**

Dr. Moninder Kaur, Mrs. Ravneet Arora  
Asst. Prof. in Economics

**Books Recommended**

- i. Gupta, S.P.: Statistical Methods, 37<sup>th</sup> edition (2009), Sultan Chand and Co., New Delhi
- ii. Dhawan, S., "Quantitative Techniques-II", (2007), Sharma Publication, Jalandhar
- iii. Gupta, S.C., "Fundamentals of Statistics", (2013), Himalaya Publishers, New Delhi

**B.Sc. (Semester-II)**

**MATHEMATICS**  
**PAPER-I: CALCULUS AND DIFFERENTIAL EQUATIONS**

**TERM-1**

Asymptotes, Tests for concavity and convexity, Points of inflexion, Multiple Points, Curvature, Tracing of Curves (Cartesian and Parametric coordinates only).  
Integration of hyperbolic functions. Reduction formulae. Definite integrals. Exact differential equations. First order and higher degree equations solvable for  $x, y, p$ . Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant and variable coefficients. Variation of Parameters method.

**TERM-2**

Fundamental theorem of integral calculus. Quadrature, rectification.  
reduction method, series solutions of differential equations. Power series method, Bessel and Legendre equations (only series solution).

**Submitted by:**  
Mrs. Neetu Vinod, Mrs. Honey  
Asst. Prof. in Mathematics

**Books Recommended**

- i. G.F. Simmons: Differential Equations, Tata McGraw Hill Edition, New Delhi, 1972
- ii. Sharma D.R: Calculus and Differential Equations, (34<sup>th</sup> Edition): Jalandhar Punjab :  
Sharma Publication
- iii. Eurin Kreyszing : Advanced Engineering Mathematics, John Wiley and Sons, 1999.52

**B.Sc. (Semester–II)**

**MATHEMATICS  
PAPER–II: CALCULUS**

**TERM-1**

Limit and Continuity of functions of two variables, Partial differentiation, Change of variables, Partial derivatives and differentiability of real-valued functions of two variables, Schwartz's and Young's Theorem, Statements of Inverse and implicit function theorems and applications. Euler's theorem on homogeneous functions, Taylor's theorem for functions of two variables, Jacobians, Envelopes. Evolutes, Lagrange's undetermined multiplier method.

**TERM-2**

Maxima, Minima and saddle points of functions of two variables.  
Double and Triple Integrals, Change of variables., Applications to evaluation of areas, Volumes, Surfaces of solid of revolution, Change of order of integration in double integrals.  
Application to evaluation of area, volume, surface of solids of revolutions.

**Submitted by:**

Mrs. Mankiran Kaue  
Asst. Prof. in Mathematics

**Books Recommended**

- i. Sharma. D.R. : Calculus (34<sup>th</sup> Edition) : Jalandhar, Punjab : Sharma Publication
- ii. Kreyzig, E: Advanced Engineering Mathematics
- iii. Narayan S. and P.K. Mittal: Differential Calculus Sultan Chand and Sons

**B.Sc. (Semester–II)**

**COMPUTER SCIENCE**

**PROGRAMMING USING C (THEORY)**

**TERM-1**

Data Representation, Introduction to Number Systems and *Character Codes, Flow Charts (ICT)*, Problem Analysis, decision tables, pseudo codes and, algorithms.

Programming Languages C:

Basics of C: Introduction to C, Applications and Advantages of C, Tokens, Types of Errors

*Data Types (ICT)*: Basic & Derived Data Types, User Defined Data Types, Declaring and initializing variables.

*Operators and Expressions (ICT)*: Types of operators (Unary, Binary, Ternary), Precedence and Associativity

Data I/O Functions: Types of I/O function, Formatted & Unformatted console I/O Functions

**TERM-2**

*Control Statements (ICT)*: Jumping, Branching and Looping–Entry controlled and exit controlled, Advantages/Disadvantages of loops, difference between for, while and do–while.

Arrays: Types of Arrays, One Dimensional and Two Dimensional Arrays.

*Strings (ICT)*: Introduction to Strings and String functions, array of strings.

Functions: User Defined & Library Function, Function (Prototype, Declaration, Definition), Methods of passing arguments, local and global functions, Recursion.

*Storage Classes (ICT)*: Introduction to various storage classes, scope and lifetime of a variable, Storage class specifiers (auto, register, static, extern), advantages and disadvantages.

*Structure and Union (ICT)*: Introduction to structure and union, pointers with structure.

**Submitted by:**

Ms. Kawaljit Kaur

Asst. Prof. in Computer Science

**Books Recommended**

- i. Learn Programming in C by Anurag Gupta and Anshuman Sharma
- ii. Programming using C by Sandeep Sood

**B.Sc. (Semester–II)**

**Drug Abuse: Problem, Management and Prevention**

**DRUG ABUSE: MANAGEMENT AND PREVENTION**

**TERM-1**

**Prevention of Drug abuse:**

Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.

School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

**Controlling Drug Abuse:**

Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs.

**TERM-2**

Publicity and media, Campaigns against drug abuse, Educational and awareness program

Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

**Submitted by:**

Mrs. Rupinder Kaur

Asst. Prof. in Environmental Studies

**B.Sc. (Semester–IV)**

**BCG–401: ENGLISH (COMPULSORY)**

**TERM-1**

Moments in time (7-11 Poems)

Making Connections (Unit 3)

English Grammar in Use (Unit 26-37, 42-48)

**TERM-2**

Moments in time GNDU Publication (Poem 12)

Making Connections 3<sup>rd</sup> Edition, Cambridge University (Unit 4)

English Grammar in Use Raymond Murphy (Unit 92-97, 113-120)

**Submitted by:**  
Ms. Deepika Khanna  
Asst. Prof. in English

**B.Sc. (Semester-IV)**

**PUNJABI (COMPULSORY)**

**ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)**

**ਪਹਿਲੀ ਟਰਮ**

ਮੇਰੀ ਜੀਵਨਗਾਥਾ (ਸਵੈ ਜੀਵਨੀ) : ਡਾ. ਦੀਵਾਨ ਸਿੰਘ (ਨਾਇਕ ਬਿੰਬ/ ਸਵੈ ਜੀਵਨੀ ਦੇ ਤੌਰ ਤੇ)  
ਫ਼ਾਸਲੇ (ਨਾਟਕ): ਜਤਿੰਦਰ ਬਰਾੜ (ਵਿਸ਼ਾ ਵਸਤੂ/ ਸਾਰ/ ਚਾਰ ਵਿੱਚੋਂ ਦੋਂ ਪਾਤਰਾਂ ਦੀ ਪਾਤਰ ਉਸਾਰੀ)  
ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ  
ਗੁਰਮੁਖੀ ਲਿਪੀ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ

**ਦੂਜੀ ਟਰਮ**

ਮੇਰੀ ਜੀਵਨਗਾਥਾ (ਸਵੈ ਜੀਵਨੀ) : ਡਾ. ਦੀਵਾਨ ਸਿੰਘ (ਵਾਰਤਕ ਸ਼ੈਲੀ)  
ਫ਼ਾਸਲੇ (ਨਾਟਕ): ਜਤਿੰਦਰ ਬਰਾੜ (ਨਾਟਕ ਕਲਾ)  
ਸ਼ਬਦ ਜੋੜਾਂ ਦੇ ਨਿਯਮ

**Submitted by:**

Ms. Maninder Kaur  
Asst. Prof. in Punjabi

**ਮੁਢਲੀ ਪੰਜਾਬੀ  
ਪੰਜਾਬ ਦਾ ਇਤਿਹਾਸ ਤੇ ਸੱਭਿਆਚਾਰ**

**ਪਹਿਲੀ ਟਰਮ**

**ਸਿੱਖ ਧਰਮ ਦੀ ਸਥਾਪਨਾ:** ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦਾ ਜੀਵਨ ਤੇ ਉਪਦੇਸ਼ (1469-1539): ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦਾ ਜੀਵਨ, ਰੱਬ ਸਬੰਧੀ ਵਿਚਾਰ, ਗੁਰੂ ਦਾ ਮਹੱਤਵ, ਸਿੱਖਿਆਵਾਂ। ਸੰਗਤ- ਪੰਗਤ।

**ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ:** ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ (1539-1522): ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ ਦਾ ਸਿੱਖ ਧਰਮ ਦੇ ਵਿਕਾਸ ਵਿੱਚ ਯੋਗਦਾਨ।

**ਗੁਰੂ ਅਮਰਦਾਸ ਤੋਂ ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਤੱਕ (1522-1581):** ਗੁਰੂ ਅਮਰਦਾਸ ਜੀ ਦਾ ਸਿੱਖ ਧਰਮ ਦੇ ਵਿਕਾਸ ਵਿੱਚ ਯੋਗਦਾਨ: ਗੋਇੰਦਵਾਲ ਸਾਹਿਬ ਦੀ ਸਥਾਪਨਾ, ਮੰਜੀ ਪ੍ਰਥਾ ਅਤੇ ਸਮਾਜਿਕ ਸੁਧਾਰ।

**ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦੇ ਸਮੇਂ ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ (1581-1606):** ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦਾ ਯੋਗਦਾਨ, ਹਰਿਮੰਦਰ ਸਾਹਿਬ ਦਾ ਨਿਰਮਾਣ।

**ਦੂਜੀ ਟਰਮ**

**ਸਿੱਖ ਧਰਮ ਦੀ ਸਥਾਪਨਾ:** ਗੁਰਗੱਦੀ ਦੀ ਸਥਾਪਨਾ ਇਸ ਦਾ ਸਮਾਜ ਤੇ ਪ੍ਰਭਾਵ।

**ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ:** ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ (1539-1522): ਗੁਰਮੁੱਖੀ ਲਿੱਪੀ।

**ਗੁਰੂ ਅਮਰਦਾਸ ਤੋਂ ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਤੱਕ (1522-1581):** ਗੁਰੂ ਰਾਮਦਾਸ ਜੀ ਦਾ ਯੋਗਦਾਨ, ਰਾਮਦਾਸਪੁਰਾ ਦੀ ਸਥਾਪਨਾ, ਮਸੰਦ ਪ੍ਰਥਾ।

**ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦੇ ਸਮੇਂ ਸਿੱਖ ਪੰਥ ਦਾ ਵਿਕਾਸ (1581-1606):** ਆਦਿ ਗ੍ਰੰਥ ਸਾਹਿਬ ਦਾ ਸੰਕਲਨ, ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਦੀ ਸ਼ਹਾਦਤ ਤੇ ਇਸਦਾ ਮਹੱਤਵ।

**Submitted By:**  
Dr. Baljinder Kaur  
Asst. Prof. in Punjabi



**QUANTITATIVE TECHNIQUES–IV**

**TERM-1**

**Multiple Linear Regression:** Concepts, Estimation and Applications (without derivations) of: *Partial and Multiple Correlation (ICT)*.

**Non-Linear Regression:** Quadratic and Exponential; Estimation of Fitting *of Various Growth Curves(ICT)* (Modified Exponential, Gempertz and Logistic).

**Probability:** Definition, *Additive & Multiplicative Laws(ICT)* and their Applications, Bayes Theorem, Concept of Random Variable, Probability Mass Function & Density Function, Mathematical Expectation (meaning and properties), Moments, Moment Generating Function and Characteristic Function.

**Sampling:** *Various concepts – Population, Sampling Units, Complete Enumeration sample Surveys (ICT)*, Concept of an Estimator and the Standard Error, Standard Error of Estimates. Features of a Good Sample, *Random and Subjective Sampling, Simple Random Sampling (with and without replacement), Stratified Random Sampling (applications only)(ICT)*.

**TERM-2**

**Theoretical Probability Distributions:** Derivations of the properties of *Binomial, Poisson, Normal (ICT)*, Beta and Gamma Distributions.

Submitted by:  
Mrs. Ravneet Arora  
Asst. Prof. in Economics

**Books Recommended**

- i. Aggarwal.C.S., “Applied General Statistics”, (2005), New Academic Publishing House, Jalandhar
- ii. Gupta, S.C, “Fundamentals of Statistics”, (2013), Himalaya Publishers, New Delhi

**B.Sc. (Semester–IV)**

**ECONOMICS**

**MATHEMATICS**

**PAPER–I: STATICS AND VECTOR CALCULUS**

**TERM-1**

Composition and resolution of forces (parallelogram law, triangle law, polygon law, Lami's Theorem, (  $-\mu$ ) theorem). Resultant of a number of coplanar forces, parallel forces. Moments, Varignon's theorem of moments, Couples, Resultant of two Coplanar Couples, Friction, Laws of friction, Equilibrium of a particle on a rough plane. Centre of Gravity: Vector differentiation, Gradient, divergence and curl operators, line integrals, Vector identity, Vector integration, Theorems of Gauss, Green, Stokes and problems based on these.

**TERM-2**

Equilibrium of two coplanar couples, Resultant of a force and a couple. Equilibrium of coplanar, Centre of gravity of a rod, triangular lamina, solid hemisphere, hollow hemisphere, solid cone and hollow cone.

**Submitted by:**

Mrs. Neetu Vinod

Asst. Prof. in Mathematics

**Books Recommended**

- i. Sharma D.R.: Statics and Vector Calculus, (33<sup>rd</sup> edition) Jalandhar, Punjab: Sharma Publications
- ii. S.L Loney: Statics, Macmillan and Company, London
- iii. R.S Verma: A Text Book on statics, optical Pvt. Ltd. Allahabad

**B.Sc. (Semester–IV)**

**MATHEMATICS**  
**PAPER–II: SOLID GEOMETRY**

**TERM-1**

Cylinder as surface generated by a line moving parallel to a fixed line and through fixed curve. Different kinds of cylinders such as right circular, elliptic, hyperbolic and parabolic in standard forms, Cone with a vertex at the origin as the graph of homogeneous equation of second degree in  $x$ ,

$y$ ,  $z$ . Equation of ellipsoid, hyperboloid and paraboloid in standard forms. Surfaces represented by general equation of 2<sup>nd</sup> degree  $S = 0$ . Tangent lines, tangent planes and Normal plane.

**TERM-2**

Cone as a surface generated by a line passing through a fixed curve  $f(x,y)=0$  and fixed point outside the plane of the curve, right circular and elliptic cones.

Equation of surface of revolution obtained by rotating the curve about the  $z$ -axis in the form of  $f(x^2 + y^2, z)=0$ .

**Submitted by:**

Mrs. Honey

Asst. Prof. in Mathematics

**Books Recommended**

- i. Sharma. D.R. Solid Geometry, (2019) 33<sup>rd</sup> edition: Jalandhar, Punjab: Sharma Publication
- ii. Narayan, S: Analytical Solid Geometry, Sultan Chand & Sons (2015)
- iii. Kreyszing, E: Advanced Engineering Mathematics

**INTERNATIONAL ECONOMICS AND PUBLIC FINANCE**

**TERM-1**

**International Trade:**

*Internal and External Trade (ICT)*. Classical and Heckscher. Ohlin Theories, Gains from Trade, Terms of Trade, (gross, net and income terms of trade). *Trade and economic development (ICT)*.

*Meaning (ICT)* and components of balance of payments, *Methods for correcting adverse balance of payments (ICT)*, devaluation and direct control.

**Public Finance:**

Nature, scope importance.

**Public Expenditure:**

*Meaning, principles, importance (ICT)*, effect of public expenditure on production and distribution.

**Taxes:** *Meaning, classification (ICT)*, features of a good taxation system, *canons of taxation (ICT)*, incidence and impact of taxation.

**Public Debt:** Meaning, objectives, importance, its burden.

**TERM-2**

Free trade vs. protection, rationale of a protectionist policy in less developed area. GATT & WTO (Introductory).

**Rate of Exchange:** Meaning and determination, Fixed and flexible exchange rates.

**Submitted by:**

Mrs. Jaismeen Kaur  
Asst. Prof. in Economics

**Books Recommended**

- i. Jain, T.R, Sandhu, A.S. (2017); International Economics and Public Finance, New Delhi : VK Publications
- ii. Paul, R.R (2000); Money Banking and International Trade, Ludhiana, Kalyani Publishers

**COMPUTER SCIENCE  
DATA STRUCTURES & PROGRAMMING LANGUAGE USING C++  
(THEORY)**

**TERM-1**

Data Structure: Introduction to elementary Data Organization, Common Operation on Data Structures, Algorithm Complexity, Big O Notation, Time-Space Trade off between Algorithm. Arrays: Array Defined, Representing Arrays in memory, *Various operations on Linear arrays (ICT)*, Multi Dimensional arrays.

Linked Lists: Types of Linked Lists, representing linked list in memory, *advantages of using linked lists over arrays (ICT)*, Various operations of linked lists.

Sorting and Searching: Sorting Algorithms, *bubble sort (ICT)*, selection sort, insertion sort, *quick sort (ICT)*, *merge sort (ICT)*, *heap sort (ICT)*, searching Algorithms, *linear search (ICT)* and *binary search (ICT)*.

Object Oriented Programming: Objects & Classes, Constructor & Destructor, Operator Overloading, Overloading unary operators, Overloading binary operators, Data conversion, Pitfalls of operator overloading and conversion, *Inheritance (ICT)*, Derived class and base, Derived class constructor.

**TERM-2**

Stacks: Description of STACK structure, Implementation of stack, using arrays and linked lists, application of stack-converting Arithmetic expression from infix notational to polish and their subsequent evaluation, *quicksort technique to sort an array (ICT)*.

Queues: Description of queue structure, Implementation of queue using arrays and linked lists, description or priorities of queues, deques.

Overloading member functions, Inheritance in the English distance class, class hierarchies, Public & Private inheritance, *Level of inheritance (ICT)*, Polymorphism, *problems with single inheritance (ICT)*, *multiple inheritance (ICT)*.

**Submitted by:**  
Ms. Devika Sharma  
Asst. Prof. in Computer Science

**Books Recommended**

**Text Book**

- i. Learn Programming in C++ by Anshuman Sharma.

**Reference Book**

- i. Data Structure by Schaum's Series.
- ii. Data Structure with implementation using C++ by Anshuman Sharma.
- iii. Data Structure using C++ by Tanenbaum.

**ENVIRONMENTAL STUDIES  
TERM-1**

**The multidisciplinary nature of environmental studies**

Definition, scope and importance, Need for public awareness

**Natural Resources: Renewable and non-renewable resources:**

Natural resources and associated problems.

(a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

(b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

(c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

(d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

(e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.

(f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles.

**Ecosystems**

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

**Biodiversity and its conservation**

- Introduction – Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

**Human Population and the Environment**

- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health
- Human Rights
- Value Education
- HIV / AIDS

## **B.Sc. (Semester–IV)**

- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

### **TERM-2**

#### **Environmental Pollution :**

##### **Definition :**

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

#### **Social Issues and the Environment**

- From unsustainable to sustainable development
- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

#### **Field Work**

- Visit to a local area to document environmental assets River / forest / grassland / hill / mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc.

**Submitted by:**

Mrs. Rupinder Kaur

Asst. Prof. in Environmental Studies

**B.Sc. (Semester–VI)**

**MATHEMATICS PAPER–I  
LINEAR ALGEBRA**

**TERM-1**

Definition of groups, rings and fields with examples. Definition of a vector space, subspaces with examples. Direct sum of subspaces. Linear span, Linear dependence, Linear independence of vectors. Linear combination of vectors, Quotient space and its dimension.

Linear transformation. Algebra of linear transformation. Rank- Nullity theorem, Isomorphism and Isomorphic spaces, Matrix of a linear transformation. Changes of basis, Linear operator.

**TERM-2**

Basis of a vector space, Finitely generated vector spaces. Existence theorem for basis. Invariance of the number of elements of the basis set. Dimension of sum of two subspaces.

**Submitted by:**

Mrs. Neetu Vinod

Asst. Prof. in Mathematics

**Books Recommended**

- i. Sharma. DR: Linear Algebra, (34<sup>th</sup> edition): Jalandhar , Punjab : Sharma Publication
- ii. Shanti Narayan and P.K. Mittal : A Textbook of Matrices, 10<sup>th</sup> edition (2002), S. Chand & Co.
- iii. Surjit Singh : Linear Algebra, 1997



**B.Sc. (Semester–VI)**  
**QUANTITATIVE TECHNIQUES–VI**

**TERM-1**

*Definition, Scope and Nature of Econometrics (ICT).* Simple Linear Regression Model (OLS method) with applications.

*General Linear Regression Model, assumptions (ICT),* properties (BLUE). Gauss-Markov Theorem, *Concepts of  $R_2$  and  $\bar{R}_2$  (ICT),* Test of Significance (Stress on Numericals).

Econometric Problems of *Heteroscedasticity and Multicollinearity (ICT)* in the Regression Analysis: Sources, Consequences, Tests and Remedial Measures. Specification Bias.

**TERM-2**

*Problems of Auto-Correlation in the Regression Analysis(ICT):* Sources, Consequences, Tests and Remedial Measures. Distributed Lag Models and Auto-Regressive Models. *Dummy Variable Technique and its Uses (ICT).*

Submitted by:  
Ms. Harpreet Kaur Uppal  
Asst. Prof. in Economics

**Books Recommended**

- i. Koutoyannis, A.: Theory of Econometrics, Palgrave. Ontario
- ii. Gurjarati, D.N. Sangeeta, Basic Economics (2003), Tata McGraw Gill Publishing Company Ltd., New Delhi

**B.Sc. (Semester–VI)**  
**ECONOMICS**  
**QUANTITATIVE METHODS FOR ECONOMISTS**

**TERM-1**

Sets, Relations and functions, Limits and continuity (Basic concepts), Derivative of simple functions only (excluding log & exponential functions). Maxima/Minima for single variable functions. *Introduction to matrices - definition, properties & inverse (ICT).*

Measures of central tendency — *Mean, Mode, Median (ICT)* and Geometric Mean; Measures of dispersion.

Concepts and Measure of skewness and kurtosis: Boyle's & Karl Pearson's measures. *Simple correlation & regression (ungrouped & grouped data) (ICT).*

**TERM-2**

Interpolation: Concepts and Methods — Binomial expansion, Newton and Lagrange's Method (with emphasis on missing values only). *Price Index Numbers–Weighted and Unweighted Index Numbers, various formulae and consistency tests (ICT).*

**Submitted by:**

Mrs. Jaismeen Kaur  
Asst. Prof. in Economics

**Books Recommended**

- i. Dhawan Sanjeev (2017); Business Statistics; Jalandhar, Punjab: Sharma Publications
- ii. Jain, T.R. (2017); Quantitative Methods for economists, VK Publications
- iii. Sharma, B.K, Kumar Gulshan, Batra Shallu (2011) Quantitative Methods, New Delhi, Modern Publishers

## **B.Sc. (Semester–VI)**

### **COMPUTER SCIENCE INFORMATION TECHNOLOGY (THEORY)**

Data & Network Communication: Communication media: Twisted pair, Coaxial, Fibre optics, Wireless(Line of Sight & Satellite), Network Advantages, Types & *Topologies (ICT)*, Communication using Network protocol/Network Interface card(NP/NIC), Transmission & Communication protocol/protocol(TCP/IP), Moderns, *Types of Operating systems (ICT)*: Multiuser, Multitasking & Multiprogramming and their examples.

Fundamentals of Networking O.S.: Introduction to components of various Networking O.S., *Case Study of Network Operating System Windows NT (ICT)*.

Fundamental of Client Server: Basics of Client Server model and its applications. *Designing a Client Server model by Creating Database Server and networking O.S. Server (ICT)*.

### **TERM-2**

Information Systems: Introduction to IT & its components, What is Information systems, Computer based information systems, *Management Information System (ICT)*, Decision Support System, Expert System, Functional Information System, Open Information System, Transaction Processing System, *System Development Process (ICT)* & System development Tools. Internet basics, Its uses and Applications.

Careers in Computers: Role of Programmers, Program analysis, System Analyst, System Administrators, System Managers, System Integrators, DTP Manager & Administrators, MIS Director.

**Submitted by:**

Mrs. Pooja Monga  
Asst. Prof. in Computer Science

### **Books Recommended**

- i. Information Technology by Kalyani Publishers.
- ii. Computer Network by Tanenbaum.
- iii. Operating System by Galvin.
- iv. Operating System by Charanjit Singh.
- v. Introduction to Computer by Peter Norton.

**B.Sc. (Semester–VI)**

**MATHEMATICS**  
**PAPER–II: NUMERICAL ANALYSIS**

**TERM-1**

Bisection method, Iteration method, Newton's Method, Generalized Newton's Method, Method of false position, Muller's method, Rate of convergence of these methods. Solution of linear system of equation; Direct method, Gauss elimination variant (Gauss Jordan and Crout reduction), Triangular Method, Iterative Method, Jacobi's Method, Gauss Seidel Method. Finite Differences: Forward, Backward, Central, Divided differences, shift operator, relationship between the operators and detection of errors by use of difference operator.

Interpolation with divided difference, Newton's formula, Lagrangian Method, Finite difference interpolation, Gauss formula, Stirling formula, Bessel's formula, Error Estimation Extrapolation. Numerical solution of ordinary differential equations, Initial value problem, Taylor's method, Euler's methods, Picard's method, Milne's Method, Runge-Kutta Method. Predictor- Corrector's Method

**TERM-2**

Error generation, propagation, error estimation and error bounds, Solution of non-linear equations Numerical differentiation, Method based on interpolation. Numerical Integration, Trapezoidal rule, Simpson's rule, Weddle rule, Romberg Integration, Gaussian integration method, Gaussian legendre integration. Double numerical integration.

**Submitted by:**

Mrs. Honey  
Asst. Prof. in Mathematics

**Books Recommended**

- i. S.S. Sastry: Introductory method to Numerical Analysis, 2003 (3<sup>rd</sup> edition) Prentice Hall of India
- ii. A. Maritava Gupta and Subash Ch. Bose- Introduction to Numerical Analysis
- iii. Sharma. DR (2018) Numerical Analysis : Jalandhar Punjab : Sharma Publication

**B.Sc. (Semester–VI)**  
**ENGLISH (COMPULSORY)**

**TERM-1**

**Texts Prescribed:**

1. The English Teacher by R.K. Narayan(chapters 1-5)
2. Glimpses of Theatre: Plays
  - i. The will
  - ii. Villa for sale
  - iii. Progress
  - iv. Sorry Wrong Number
3. Essay Writing

**TERM-2**

The English Teacher by R.K. Narayan (chapters 6-8)

Glimpses of Theatre: Play

- i. The Monkey's Paw (ICT)

**Submitted By:**

N.T

Asst. Prof. in English

**B.Sc. (Semester-VI)**  
**PUNJABI (COMPULSORY)**  
**ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)**  
**ਪਹਿਲੀ ਟਰਮ**

ਕਾਵਿ ਗੌਰਵ

(ਸੰਪਾ. ਬਿਕਰਮ ਸਿੰਘ ਘੁੰਮਣ, ਕਰਮਜੀਤ ਕੌਰ),

ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ,

(ਸੇਖ ਫਰੀਦ, ਸ਼ਾਹ ਹੁਸੈਨ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ, ਗੁਰੂ ਅੰਗਦ ਦੇਵ ਜੀ

ਧਰਤੀਆਂ ਦੇ ਰੀਤ (ਸਫ਼ਰਨਾਮਾ), ਬਰਜਿੰਦਰ ਸਿੰਘ ਹਮਦਰਦ,

ਨਾਨਕ ਸਿੰਘ ਪੁਸਤਕਮਾਲਾ, ਅੰਮ੍ਰਿਤਸਰ

(/)

ਲੇਖ ਰਚਨਾ (ਵਿਦਿਅਕ ਅਤੇ ਸਭਿਆਚਾਰਕ ਵਿਸ਼ਿਆਂ ਬਾਰੇ)

ਸੰਖੇਪ ਰਚਨਾ

ਵਿਆਕਰਣ :

ਪੰਜਾਬੀ ਧੁਨੀ ਵਿਉਂਤ

ਕਿਰਿਆ ਵਾਕਾਂਸ਼ : ਪਰਿਭਾਸ਼ਾ, ਬਣਤਰ ਤੇ ਪ੍ਰਕਾਰ

**ਦੂਜੀ ਟਰਮ**

ਕਾਵਿ ਗੌਰਵ

ਵਾਰਿਸ ਸ਼ਾਹ, ਸ਼ਾਹ ਮੁਹੰਮਦ

ਕਾਰਕ ਅਤੇ ਕਾਰਕੀ ਸਬੰਧ

**Submitted by:**  
Ms. Harpreet Kaur  
Asst. Prof. in Punjabi

MASTER OF COMMERCE (SEMESTER-II)

**MC-201: Corporate Financial Accounting and Auditing**

**TERM-1**

- ***Company Final Accounts–Requirements of Companies Act, 2013 (ICT).***
- Form and contents of Profit and loss account statement and balance sheet.
- ***Managerial remuneration (ICT).*** Meaning of profit. Divisible profits.
- ***Valuation of goodwill (ICT),*** different approaches such as super profit, annuity and capitalization approach.
- Valuation of shares; different approaches such as book value and earnings approach.
- Understanding the concept and rationale of Financial Audit, Cost Audit, Management Audit, Internal Audit, Proprietary Audit, Efficiency Audit and Audit by C. and A.G.,
- Statutory Auditor–Appointment qualifications, removal. Duties and liabilities of auditor. Code of conduct and ethics, professional misconduct of statutory auditor.

**TERM-2**

- Meaning, Objectives and scope of ***cost audit (ICT)***. Cost Auditor, his appointment, duties liabilities. Cost audit report; Meaning, objectives and scope of ***management audit (ICT)***. Appointment and qualifications of management Auditor.
- Audit of management functions such as planning, organising and control. Audit of functional areas–production, personnel marketing finance and ACCOUNTING

**Submitted By:**

Mrs. Savita Khanna  
Asst. Prof. in Commerce

**Books Recommended**

- i. Shukla, M.C., Gupta, S.C. (2016) Advanced Accounts, Sultan Chand
- ii. Jain, S.P., Narang, K.L. (2012) Corporate Accounting, Ludhiana, Punjab: Kalyani Publications
- iii. Gupta, K. (2011) Contemporary Auditing, Tata McGraw Hills Education Pvt. Ltd.
- iv. Jha, A. (2014) Auditing, Taxmann Publications

## MASTER OF COMMERCE (SEMESTER-II)

### MC – 202: Financial Management TERM-1

- **Capital Structure Theories:** Conceptual framework. Determinants. Net income approach, Net operating income approach, Intermediary approach and M.M. Hypotheses with special reference to the process of arbitrage.
- **Cost of Capital:** Meaning and significance of cost of capital; Calculation of cost of debt, preference capital, equity capital and retained earnings; Combined cost of capital (weighted).
- **Instruments of Finance:** Long term and short term.
- **Capital Budgeting:** Nature of investment decisions; Investment evaluation criterion—discounted cash flow criteria, discounted cash flow criteria; Risk analysis in capital budgeting (practicals through excel).
- **Dividend Policies:** Issues in dividend decisions. Forms of dividends; Theories of relevance and irrelevance of dividends.
- **Operating and Financial Leverage:** Measurement of leverages; Analyzing Alternate Financial Plans; Financial and Operating leverage, Combined leverage. EBIT and EPS analysis
- **Management of Working Capital:** Meaning, Significance and Types of Working Capital; Approaches of Working Capital; Calculating Operating Cycle Period and Estimation of Working Capital Requirements.

### TERM-2

- **Financial Management:** Meaning and nature; Financial goal—profit vs. wealth maximization; Finance functions—investment, financing, liquidity and dividend decisions. Financial planning— Theories of capitalization.
- **Management of Cash:** Strategies, Baumol's, Miller–Orr's and Beranek's models of Cash Management.
- **Management of Receivables:** Credit Policy, Credit Terms and Collection Efforts.

**Submitted By:**

Mrs. Priyanka Sharma  
Asst. Prof. in Commerce

### Books Recommended

- i. Gupta, S.K. Sharma, R.K. Gupta, N. (2019) Financial Management, Ludhiana, Punjab: Kalyani Publications
- ii. Pandey, I.M. Financial Management, Noida, Vikas Publishing House Pvt. Ltd.



## MASTER OF COMMERCE (SEMESTER-II)

### MC – 203: Research Methodology

#### TERM-1

- Research methodology: *Nature and scope (ICT)*; problem formulation and statement of research objectives. *Research process (ICT)*.
- Choose a *Research Topic (ICT)*.
- *Review of Literature (ICT)*
  - Goals of a Literature Review.
  - Types of Reviews
  - Sources of Research Literature.
  - Writing of Review.
- *Measurement concept, Levels of measurement (ICT)*—Nominal, Ordinal, Interval and Ratio.
- Attitude Measurement: Comparative and Non-comparative scaling techniques, Tabulation and cross-tabulation of data.
- Data Preparation, Analysis, and Interpretation.
  - Data preparation
  - Data screening
  - Transforming data
  - Data Analysis and Interpretation.
- Data analysis techniques: *Multiple regression analysis, Logistic regression analysis (ICT)*.
- **PRACTICALS THROUGH SPSS:** The students will be trained in the following techniques of data analysis using latest version of SPSS software. At the end of the semester, external examiner will be appointed by the University to conduct the practical by examining the students in the lab and award marks. Topics: Data preparation, Data screening, Transforming data, Data Analysis and Interpretation, Multiple regression analysis, Logistic regression analysis.

#### TERM-2

- Research designs: *Exploratory, descriptive (ICT)* and Causal designs (Basic designs—After only, Before After, After along with control group, Before after with control group, Time series designs).
- Discriminant analysis and Factor analysis and its practical

#### Submitted By:

Ms. Harpreet Kaur Uppal (Asst. Prof. in Economics)

Mrs. Vijay Laxmi (Asst. Prof. in Mathematics)

#### Books Recommended

- i. Kothari, C.R. Garg, G. Research Methodology methods and techniques, New Age International Pvt. Ltd. Publishers, New Delhi
- ii. Malhotra, N.K. Dash, S. Marketing Research : An Applied orientation, Pearson, Delhi
- iii. Gupta, S.K. Ragi, R. Research Methodology, Kalyani Publishers, Ludhiana

## MASTER OF COMMERCE (SEMESTER-II)

### MC-204: MARKETING MANAGEMENT

#### TERM-1

- ***Marketing Concepts and Philosophies (ICT)***, Importance of marketing, Building customer satisfaction and value, Concepts of customer retention, Holistic marketing and its components.
- ***Gathering information and scanning the marketing environment (ICT)***; Marketing research process: An overview.
- Consumer markets and Buyer behaviour, Business markets and Business Buying behaviour.
- ***Market segmentation: Importance and bases of segmentation. Targeting strategies, Positioning: concept and strategies (ICT)***.
- Product Decisions: Product classification and differentiation, ***New Product development process, Product life cycle and marketing strategies (ICT)***, Managing brands and Brand equity, Packaging decisions.
- Pricing Decisions: Pricing objectives, Factors influencing pricing, Pricing methods and strategies.
- Distribution Decisions: Patterns of Channels and types of intermediaries.

#### TERM-2

- Promotion Decisions: Promotion mix and its components, factors affecting promotion mix.
- ***Socially Responsible Marketing: Cause-related marketing and Social Marketing (ICT)***
- Internal Marketing, E Commerce Marketing practices.

**Submitted By:**  
Dr. Samriti Kapoor  
Asst. Prof. in Commerce

#### Books Recommended

- i. Ramaswamy, V.S. and NamaKumari, S. (2014) Marketing Management, New Delhi: McGraw Hill Education (India) Pvt. Ltd.
- ii. Sontakki, C.N., Gupta, N. and Gupta, A. (2017) Marketing Management, Ludhiana, Punjab: Kalayni Publications
- iii. Kottler, P. and Keller, K.L. (2016) Marketing Management, Noida, U.P.: Pearson India Education Service Pvt. Ltd.

**MC-205: HUMAN RESOURCE MANAGEMENT**

**TERM-1**

- Human Resource Management (HRM): Nature, Scope, Objectives and Functions of HRM, Evolution of HRM, *Changing Trends in HRM (ICT)*.
- *Human Resource Planning (HRP) (ICT)*: Concept, Need and Importance of HRP, Factors affecting HRP, Human Resource Planning Process.
- Job Analysis: Meaning and Objective, Process, Methods of Collecting job data, Uses of Job Analysis, Problems of Job Analysis.
- *Recruitment (ICT)* and Selection: Meaning and Factors governing Recruitment, Recruitment Sources and Techniques. Meaning and Process of Selection, Problems associated with Recruitment and Selection.
- HR Training and Development: Concept and Need, Process of Training and Development Programme:- Identification of Training and Development Needs, Objectives, Strategy & Designing of Training and Development, Implementation and *Methods of Training Programme (ICT)* and Levels of Training Evaluation, Impediments to Effective Training.
- Performance Appraisal: Meaning, Purpose, Essentials of Effective Performance Appraisal System, Various Components of Performance Appraisal, *Methods and Techniques of Performance Appraisal (ICT)*.

**TERM-2**

- Managing Compensation and *Employee Remuneration (ICT)*: Concept, Objectives, Components of Employee Remuneration, Factors Influencing Employee Remuneration, Challenges of Remuneration.
- *Job Evaluation (ICT)*: Meaning, Process and Methods of Job Evaluation.
- *Incentives (ICT)*: Concept, Importance and Process of Incentive
- Grievance Handling: Meaning, Process, Grievance handling machinery.
- Discipline: Meaning, reasons of indiscipline, consequences of indiscipline and approach to maintain discipline

**Submitted By:**

Dr. Payal

Asst. Prof. in Commerce

**Books Recommended**

- i. Gupta, S.K. and Joshi, R. (2017). Human Resource Management, Ludhiana, Punjab: Kalyani Publications
- ii. Aswathappa, K. (2008). Human Resource Management: Text and Cases. 5<sup>th</sup> edition, Tata McGraw Hill Publishing Company Ltd., New Delhi
- iii. Denisi, A.S., Griffin, R.W. and Sarkar, A. (2016). Human Resource Management: A South- Asian Perspective. Cenhahe Learning India Pt. Ltd.
- iv. Dessler, G. and Varkkey, B. (2018) Human Resource Management. 5<sup>th</sup> edition, Pearson India Education Services Pvt. Ltd.

## MASTER OF COMMERCE (SEMESTER – IV)

### MC – 401: International Accounting

#### TERM-1

- ***Introduction to International Accounting (ICT)***: Interaction between accounting and its environment. The global economy. Meaning and domain of international accounting, ***Scope of International Accounting (ICT)***
- International classification of ***financial accounting ((ICT)*** and reporting.
- International financial analysis: meaning, need and significance of international financial analysis. Business analysis framework. Problems in international financial analysis.
- International harmonisation of financial reporting: why harmonisation?  
Role of IASB, OECD, EU and IOSCO( international Organisation of Securities Commissions)
- International transfer pricing: meaning, objectives, methods and regulation.
- ***Issues related to consolidation of financial statements of MNCs (ICT)***.
- Convergence of accounting standards.

#### TERM-2

- International financial reporting: concept and differences in international financial reporting.  
***Reporting problems of Multinational Companies (ICT)***.
- International taxation: diversity of national tax systems, taxation of foreign source income and double taxation.
- ***Strategic accounting issues in MNCs (ICT)***: strategy formulation, implementation and control. Evaluating the performance of foreign operations.

**Submitted By:**  
Dr. Navdeep Kaur  
Principal

#### Books Recommended

##### Reference Books

- i. International Accounting by Shirin Rathore
- ii. International Accounting by A. K. Das Mohapatra

## MASTER OF COMMERCE (SEMESTER – IV)

### MC-402: E-Commerce

#### TERM-1

- Introduction to E Commerce and Definition, E-Commerce based activities, Goals of ECommerce,
- Functions, Advantages and disadvantages of E-Commerce, Scope of ECommerce, *Framework of E-Commerce (ICT)*, Electronic Commerce and Electronic Business
- *Electronic business models: B2B, B2C, C2C, C2B (ICT)*. Web sites as market place. Pure online vs. brick and click business; Assessing requirement for an online business designing, developing and deploying the system.
- Operations of E Commerce: Online-payment mechanism; *Electronic Payment systems (ICT)*; payment Gateways; Visitors to website; *Tools for promoting websites (ICT)*; Risk management options for e - payment systems.
- e-Business Applications & Strategies: Business Models & Revenue Models over Internet, *Emerging Trends in e-Business (ICT)*, e-Governance, Digital Commerce, Mobile Commerce, Strategies for Business over Web, Internet based Business Models. *E-Marketing (ICT)*, e-CRM, e-SCM, e-Procurement

#### TERM-2

- Security and Legal Aspects of E-Commerce: *Threats in E-Commerce (ICT)*, Security of Clients and Service-Provider; Cyber Laws – Relevant provisions of *Information Technology Act 2000 (ICT)*, offences, secure electronic records and digital signatures penalties and adjudication.

**Submitted By:**

Mrs. Monika Shahi

Asst. Prof. in Computer Science

#### Books Recommended

##### Text Books

- i. E- Commerce by Sushil Bhardwaj & Puneet Kumar by Kalayani Publications.

##### Reference Books

- i. Bajaj, Deobyani Nag, E-Commerce, Tata McGraw Hill Company, New Delhi.
- ii. Frontiers of Electronic Commerce by KalaKota, Whinston.
- iii. E- Commerce (An Indian Perspective) by P.T. Joseph.
- iv. Computer Applications for Business II by Manjot Kaur (Kalyani Publishers).

## MASTER OF COMMERCE (SEMESTER – IV)

### GROUP 'A': Accounting & Finance MC – 411: International Financial Management

#### TERM-1

- Foreign Exchange System: The Internationalization of Business and Finance, Alternative Exchange Rate Systems; International monetary system, *The European Monetary System (ICT)*. Foreign Exchange Rate Determination: Introduction to spot market and Forward Market; Setting the Equilibrium Spot Exchange Rate; Factors affecting Currency Value: BOP Approach & Asset Market Approach; Role of Central Bank in Determination of Exchange Rates; Parity conditions in International Finance: Arbitrage and Law of One Price; Purchasing Power Parity; Fisher Effect; Fisher Effect in International Context. Currency Forecasting: Interest Rate Parity Theory, The relationship between forward and future spot rate, Currency Forecasting;  
*Balance of payments: Balance of Payment Categories: Current Account, Capital Account, Official Reserves Account; Balance of Payment: The International flow of goods, services and capital, Coping with current account deficit (ICT).*
- Country Risk Analysis: Country Risk Analysis, Measuring & Managing Political Risk, Firm Specific Risks; Country Risk Analysis: Study of Economic & Political Factors Posing Risk.

#### TERM-2

- Measuring Various Exposures: Transaction Exposure, Operating Exposure and Translation Exposure. Risk Hedging-An Introduction
- Foreign Exchange Risk Management: Foreign Exchange Instruments, Recent developments in derivatives markets in India; Currency Futures & Options Market; Interest Rate & Currency Swaps; Interest rate Forwards & Futures.

**Submitted By:**

Ms. Harleen Kaur  
Asst. Prof. in Commerce

#### Books Recommended

##### Text Books

- i. International Financial Management by Shashi K Gupta, Parneet Rangi, Kalyani Publishers

##### Reference Books

- i. International Financial Management by VA Avadhani, Himalaya Publishing House
- ii. International Financial Management by P.G. Appte, Tata McGraw Hill
- iii. International Financial Management –O.P. Aggarwal, Himalaya Publishing House

## **MASTER OF COMMERCE (SEMESTER – IV)**

### **GROUP ‘A’: Accounting & Finance MG – 412: Financial Markets and Financial Services**

#### **TERM-1**

- Indian Financial System: Meaning, Structure, Role and Deficiencies
- Development Banking in India: Evolution, Structure, Promotional Role, Resource
- Planning and Mobilisation, Project Evaluation and Follow Up, Performance Evaluation.
- Recent Developments in Development Banking.
- Reserve Bank of India: Organization and Management, Monetary Policy, Technique of Monetary control, Liquidity Adjustment Facility.
- NBFCs: Concepts, RBI Guidelines, Progress, problems and Prospects.
- Banking Sector Reforms in India-Implementation Status.
- Factoring Services in India
- Venture Capital Financing in India.
- Govt. Securities Market in India
- Call Money Market in India
- Treasury Bills Market in India

#### **TERM-2**

- CCIL: Role and Functions.
- Repos: Concept, Process and Progress in India
- Commercial Paper and Certificate Deposit Market in India.
- Securitization: Concept, Process and Progress in India.

**Submitted By:**  
Mrs. Priyanka Sharma  
Asst. Prof. in Commerce

#### **Books Recommended**

- i. Sharma, S. Payal. Chugh, P. Financial Markets and Financial Services, Jalandhar, Sharma Publications
- ii. Gordon, E. Natarajan, K. Financial Markets and Financial Services, Mumbai, Himalaya Publishing House
- iii. Varshney, P.N. Mittal, D.K. Indian Financial System, New Delhi, Sultan Chand and Sons.

## MASTER OF COMMERCE (SEMESTER – IV)

### GROUP ‘A’: Accounting & Finance MC – 413: Corporate Tax Law and Planning

#### TERM-1

- Tax Planning, Tax Avoidance & *Tax Evasion (ICT)*: Meaning, features and basic differences between tax planning, avoidance and evasion; various tools of tax evasion; Tax Management and its scope.
- *Corporate Tax: Residential status of a company, Computation of total income and tax liability of companies, Minimum alternate tax (ICT)*.
- Deductions from Gross Total Income u/s *80(ICT)*. related to company assessee.
- *Tax deduction or collection at source (ICT)*., Advance payment of tax for company assesses.
- *Tax Planning for company assess with reference to location and type of business*.
- Tax Planning for New Business with reference to location and type of business.
- Tax Planning in relation to Forms of Organisation: Sole Proprietary; Partnership and Company form of Organisation from tax planning point of view.
- Tax incentives to Newly Established Industrial Undertakings: *In Special Economic Zones u/s 10 AA and for exporters (ICT)*.
- *Tax planning in respect of Amalgamation or Demerger (ICT)*..
- Avoidance of Double Taxation

#### TERM-2

- Tax Planning and Financial Management Decisions: Tax Planning relating to Capital structure decisions, Dividend Policy, Inter-Corporate Dividend and Bonus shares.
- Tax Planning and Management Decisions: Own or Lease Decision, Make or Buy
- Decision, Sale of Asset used for Scientific Research, Decision relating to Repair, Replace, Renovation of an Asset, Shut-down or Continue Decision.
- Taxability of Dividend from Company and *investors point of view ICT*).
- Avoidance of Double *Taxation (ICT)*.

**Submitted By:**

Mrs. Jaskiranjit Kaur  
Asst. Prof. in Commerce

#### Books Recommended

- i. Gaur, P., Puri, R. (2020) Corporate Tax Planning and Management, Ludhiana, Punjab: Kalyani Publications
- ii. Ahuja, G. (2019) Systematic Approach to Income Tax, New Delhi: Bharat Law House
- iii. Mehrota H.C. (2019) Corporate Tax Planning and Management, Agra, Uttar Pradesh: Sahitya Bhawan Publications
- iv. Singhania , U.K. (2010) Direct Tax Theory & Practice, New Delhi: Taxman Publications



## MASTER OF COMMERCE (SEMESTER – IV)

### GROUP ‘D’: Marketing Management MC – 451: Advertising and Sales Managements

#### TERM-1

- Nature and scope and functions of Advertising, Classification of Advertising, *Advertising as an element of Marketing Mix (ICT)*, Advertising as a Tool of Communication, Setting Advertising Objectives;
- Behavioral Dynamics – The DAGMAR Approach, Hierarchy of Effects Model, New Adopter Model, AIDA Model;
- Developing Segmentation and Positioning Strategies for Advertising – Segmenting on the Basis of Usage Patterns and Commitment Level, Segmenting Business Markets,
- Formulating Positioning Strategy, Benefit Positioning, User Positioning and Competitive Positioning;
- *Advertising and Product Life Cycle (ICT)*  
Managing an Advertising Program:
  - Message Structure – Appeals, Copy, Layout;
  - Advertising Media – Media Planning, Media Selection and Scheduling;
  - *Measuring Advertising Effectiveness – Pre-testing and Post-testing copy(ICT);*
  - Advertising Budget – Top Down Methods: Affordable Method, Percentage of Sales Method, Competitive Parity Method; Build-up Approach: Objective and Task Method;
  - *Advertising Agencies (ICT)*– Types, Role and Functions;
  - Social and Cultural Consequences of Advertising – Advertising and Stereotyping
- Sales Management:
  - Nature and Scope of Sales Management, *Personal Selling Objectives(ICT)*;
  - Sales Force Organization – Nature and Types;
  - Sales Force Recruitment – Process and Sources;
  - Sales Force Selection Process;
  - *Managing Sales Training Programs – Need and Objectives(ICT)*;

#### TERM-2

- Ethical Aspects of Advertising – Misleading Advertising, Deceptive Advertising and Shock Advertising;
- *Economic Effects and Legal Aspects of Advertising(ICT)*;
- Motivating Sales Personnel – Significance, Financial and Non-Financial Reward System, Sales Meetings and Sales Contests;
- *Designing Sales Territories and Sales Quotas – Objectives and Types (ICT)*;
- Developing and Managing Sales Evaluation Program.

**Submitted By:**

Ms. Rimmy Chhabra  
Asst. Prof. in Commerce

#### Books Recommended

- i. Sahni, N.K., Gupta, M. (2015) Advertising and Sales Managements, Ludhiana, Punjab: Kalyani Publications
- ii. Batra, R., Myers, J. G., Aaker, D.A, (2017) Advertising Managements, Noida, Uttar Pradesh: Pearson

## MASTER OF COMMERCE (SEMESTER – IV)

### GROUP 'D': Marketing Management MC – 452: Brand and Distribution Management

#### TERM-1

- ***Brands and Brand Management: Meaning, Importance of brands; Concept of Brand Equity. (ICT).***
- Brand Loyalty: Meaning and Measuring, Brand Loyalty; Strategic Value of Brand
- Loyalty; Maintaining and Enhancing Brand Loyalty.
- Customer Based Brand Equity: Defining Customer based Brand Equity; Brand
- Knowledge; Sources of Brand Equity – Brand Awareness, Brand Image; Building a
- Strong Brand – Brand Building Blocks, Brand Salience, Brand Performance, Brand
- Imagery, Brand Judgments, Brand Feelings, Brand Resonance.
- ***Brand Positioning: Identifying and Establishing Brand Positioning (ICT);***
- ***Concept of brand personality (ICT)***
- Brand Associations: Product Attributes, Intangibles, Customer Benefits, Relative Price,
- Use/Application, User/Customer Leveraging Secondary Brand Association: Country of Origin, Co-branding, Licensing Celebrity Endorsement.
- Designing and Implementing Branding Strategies: Brand-Product Matrix; Brand
- Hierarchy; ***Brand Extensions (ICT).***
- Measuring and Interpreting Brand Performance: Measuring sources of brand equity;
- Qualitative Research Techniques: Free association, Projective Techniques;
- Quantitative Research Techniques: Awareness, Image.
- Brand Valuation Methods.

#### TERM-2

##### **Retail Management:**

- Introduction to Retailing: Nature and Scope of Retailing, ***Types of Retail Formats (ICT),***
- Retail Franchising: Concept, Types, Advantages and Disadvantages.
- Retail Locations: ***Types of Retail Locations; (ICT).*** Steps involved in choosing a Retail
- Location; Methods of Evaluating a Trading Area.
- Retail Merchandising: Concept of Merchandising; Planning Merchandising
- assortments.
- Servicing the Retail Customer: Concept of Customer Service; Importance of Service
- in Retail; ***Customer Service as a part of Retail Strategy (ICT);***
- Retail Store Design and Visual Merchandising: Importance of Store Design; Exterior
- Store Design; Interior Store Design; ***Visual Merchandising (ICT).***
- Supply Chain Management: Concept of Supply Chain Management with reference to
- Retailing; Supply Chain Integration.

**Submitted By:**  
Dr. Samriti Kapoor  
Asst. Prof. in Commerce

## **MASTER OF COMMERCE (SEMESTER – IV)**

### **Books Recommended:**

- i. Keller, K.L., Parameswarn, A.M. G and Jacob, I (2018) Strategic Brand Management: Building, Measuring and Managing Brand Equity, Noida, U.P. : Pearson Prentice Hall
- ii. Bansal, M., Singla, B. (2017) Brand and Distribution Management, New Delhi: Kalyani Publications

## MASTER OF COMMERCE (SEMESTER – IV)

### M.Com (Semester IV) MC-453: Services Marketing TERM-1

- **Introduction to services (ICT):** Meaning and need for services marketing, Service and technology, Differences in goods versus services marketing, Service marketing mix.
- **Customer Expectations of Services:** Meaning and types of services expectations, Factors that influence customer expectations of services, Model of customer service.
- **Customer Perceptions of Services(ICT):** Customer satisfaction, Service quality, Service encounters, Strategies for influencing Customer perceptions.
- **Understanding customer Expectations & Perceptions through Marketing Research:** Using marketing research to understand customer expectation, Elements in effective services marketing research program, Analyzing and interpreting marketing research findings, using marketing research information.
- **Service Recovery (ICT):** Impact of service failure and recovery, Service recovery paradox, How customer respond to service failures? Why do/don't people complain, Customer expectation after complain, Switching versus staying post service recovery, Service recovery strategies.
- **Service Development & Design (ICT):** Challenges of service design, Service redesign, Stages in new service development, Service blueprinting, High performance service innovations.
- **Physical Evidences and Servicescape:** Types of servicescapes, Role of servicescape, Framework for understanding servicescape effects on behavior, Approaches for understanding servicescape effects, Guidelines for physical evidence strategy.
- **Employees' Role in Service Delivery (ICT):** The critical importance of service employees, Boundary/spanning roles, Hire the right people, Develop people to deliver service quality, Retain the best people.
- **Customers' Role in Service Delivery (ICT):** importance of customers' in service delivery, customers' roles, Self-service technologies, Strategies for enhancing customers' participation, Managing the customer-mix
- **Delivery Service through Intermediaries & Electronic Channels:** service Intermediaries, Direct or company owned channels, Common issues involving intermediaries, Key intermediaries for service delivery, Strategies for effective service delivery through intermediaries
- **Integrated Service Marketing Communications:** Need for co-ordinate in marketing communication, Reasons for service communication problems, Matching service promises with delivery, exceeding customer expectations.

### TERM-2

- **Pricing of Services (ICT):** Services prices for consumers, cost-based pricings, Competition based pricing, Demand-based pricing, discounting odd pricings, Synchro-pricing, Penetrating pricing, Prestige pricing, Skimming pricing, Value pricing, Marketing segmentation pricing, Price framing, Price bundling, Complimentary pricing, result- base pricing, Contingency pricing, Sealed bid contingency pricing, Money-back guarantees, commissions.
- **Financial & Economic Effects of Service:** Service & profitability, Offensive marketing effects of service, Defensive marketing effects of service, customers' perceptions of service & purchase intentions, Drivers of service quality, Customer retention & profits.
- **Integrated Gaps Model of Service Models of Service Quality (ICT):** Gaps model of service quality, Gronroos' perceived service quality model, SERQUAL, Zeithamal's RATER model, Kano's two factor model.

## **MASTER OF COMMERCE (SEMESTER – IV)**

- Organizing for Change Management & Service Leadership: Service-profit chain, Qualities associated with service leaders, Reducing inter-functional conflicts, Change management, Evolution versus turnaround, Valuating leadership potential, Leadership culture & climate.

**Submitted By:**

Dr. Payal

Asst. Prof in Commerce

### **Books Recommended**

- i. Zeithaml, V.A., Bitner, M.J., Gremler, D.D. and Pandit, A. (2008), Services Marketing, 4<sup>th</sup> edition, Tata McGraw Hill Publishing Company Limited, New Delhi
- ii. Wirtz, J. Lovelock, C. and Chatterjee, J. (2018). Services marketing, 8<sup>th</sup> edition, Pearson Indian Education Services Pvt. Ltd.
- iii. Nargundkar, R. (2010). Services Marketing: Text and Cases: 3<sup>rd</sup> edition, Tata McGraw Hill Publishing Company Limited, New Delhi
- iv. Shajahan, S. (2012). Services Marketing, 2<sup>nd</sup> Edition, Himalaya Publishing House Pvt. Ltd.
- v. Bansal, G. Kaur, A. and Kumar, B. (2018). Services Marketing, Ludhiana, Punjab : Kalyani Publications