

KARNATAKA STATE AKKAMAHADEVI WOMEN'S UNIVERSITY, VIJAYAPURA
SYLLABUS (SUBJECT TITLES) 2018-19

B.COM

S. N.	Title of the Subject	Weekly Teaching Hours	Exam Duration (Hours)	Maximum Marks		
				IA	Semester-end Exam	Total
B.Com First Semester						
1.1	Basic English	5	3	20	80	100
1.2	Any one Modern Indian Language. Kannada/Hindi/Urdu/Additional English	5	3	20	80	100
	Core Papers					
1.3	Financial Accounting - I	5	3	20	80	100
1.4	Secretarial Practices	5	3	20	80	100
1.5	Managerial Economics - I or Business Mathematics – I	5	3	20	80	100
1.6	Principles of Marketing or (Vocational) Entrepreneurial Development – I or (Vocational) Tax Procedures and Practice – I or (Vocational) Advertising, Sales Promotion and Sales Management – I	5	3	20	80	100
	Compulsory Paper					
1.7	Indian Constitution	5	3	20	80	100
B.Com Second Semester						
2.1	Basic English	5	3	20	80	100
2.2	Any one Modern Indian Language. Kannada/Hindi/Urdu/Additional English	5	3	20	80	100
	Core Papers					
2.3	Financial Accounting – II	5	3	20	80	100
2.4	Business Communication Skills	5	3	20	80	100
2.5	Managerial Economics - II or Business Mathematics – II	5	3	20	80	100
2.6	Women Entrepreneurship. (Vocational) Entrepreneurial Development – II or (Vocational) Tax procedures and practice – II or (Vocational) Advertising, Sales Promotion and Sales	5	3	20	80	100

	Management – II					
	Compulsory Paper					
2.7	Human Rights and Environmental Studies	5	3	20	80	100
B.Com Third Semester						
	Core Papers					
3.1	Corporate Accounting – I	5	3	20	80	100
3.2	Business Statistics – I or Commercial Arithmetic – I or Entrepreneurship Development (Vocational Paper IB)	5	3	20	80	100
3.3	Monetary Economics or Entrepreneurship Development (Vocational Paper IC)	5	3	20	80	100
3.4	Indian Financial System	5	3	20	80	100
3.5	Retail Management	5	3	20	80	100
3.6	Principles and Practices of Management	5	3	20	80	100
	Compulsory Paper					
3.7	Computer Applications	5	3	20	80	100
B.Com Fourth Semester						
	Core Papers					
4.1	Corporate Accounting – II	5	3	20	80	100
4.2	Business Statistics – II or Commercial Arithmetic – II or Entrepreneurship Development (Vocational Paper IB)	5	3	20	80	100
4.3	International Economics or Entrepreneurship Development (Vocational Paper IC)	5	3	20	80	100
4.4	Modern Banking - Theory and Practices	5	3	20	80	100
4.5	Goods and Services Tax - I	5	3	20	80	100
4.6	Insurance – Principles and Practice	5	3	20	80	100
4.7	Computer Application in Business – II	5	3	20	80	100
B.Com Fifth Semester						
	Core Papers					
5.1	Principles of Financial Management	5	3	20	80	100
5.2	Goods and Services Tax - II	5	3	20	80	100
5.3	Principles and Practices of Auditing	5	3	20	80	100
5.4	Indian Economy	5	3	20	80	100

5.5	Computer Application in Business – II	5	3	20	80	100
5.6	Elective Paper - I	5	3	20	80	100
5.7	Elective Paper - II	5	3	20	80	100
B.Com Sixth Semester						
6.1	Business Law	5	3	20	80	100
6.2	Human Resource Management	5	3	20	80	100
6.3	Principles of Management Accounting	5	3	20	80	100
6.4	Industrial Economics	5	3	20	80	100
6.5	Computer Application in Business – III	5	3	20	80	100
6.6	Elective Paper – III	5	3	20	80	100
6.7	Elective Paper - IV	5	3	20	80	100
ELECTIVE GROUPS						
(The student shall choose one of the elective groups only)						
GROUP – ‘A’						
5.6	Paper I: Cost Accounting – I	5	3	20	80	100
5.7	Paper II: Income Tax - I	5	3	20	80	100
6.6	Paper III: Cost Accounting – II	5	3	20	80	100
6.7	Paper IV: Income Tax- II	5	3	20	80	100
GROUP – ‘B’						
5.6	Paper I: Banking – I	5	3	20	80	100
5.7	Paper II: Insurance – I	5	3	20	80	100
6.6	Paper III: Banking – II	5	3	20	80	100
6.7	Paper IV: Insurance – II	5	3	20	80	100
GROUP – ‘C’						
5.6	Paper I: Advanced Business Statistics – I	5	3	20	80	100
5.7	Paper II: Advanced Business Statistics – II	5	3	20	80	100
6.6	Paper III: Advanced Business Statistics – III	5	3	20	80	100
6.7	Paper IV: Advanced Business Statistics – IV	5	3	20	80	100

B.COM FIFTH SEMESTER
5.1: Principles of Financial Management

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objective: To acquaint the students with fundamental aspects of finance in the business.

Pedagogy: Class room lecture, Seminar and presentation.

Unit – 1 **Financial Management(12 Hours):** Meaning—objectives of Financial Management—scope and functions of Financial Management. Financial Decisions relating to the financial matters covering: financial requirement decision, Investment decision—financing decision and dividend decision. Role and responsibilities of finance manager Financial Planning: Meaning and Salient features/cannons of financial planning (Theory only).

Unit – 2 **Capitalization(15 Hours):** Over capitalization—meaning—causes—ill-effects and remedies; Under capitalization—meaning – causes – ill- effects and remedies; – Fair capitalization – problems on over, under and fair capitalization. **Capital Structure:** Meaning, factors determining capital structure—optimal capital structure – EPS Analysis – problems relating thereto.

Unit- 3 **Cost of capital (15 Hours):** Meaning – kinds of cost of capital—cost of equity, preference, debentures, weighted average cost of capital. Problems relating thereto.

Unit- 4 **Investment Decisions (10 Hours):** Meaning of capital budgeting – importance-- capital budgeting process—Investment criteria—Pay-back method. Accounting Rate of Return (ARR) method, Net Present value(NPV). Internal Rate of Return method (IRR) – Problems relating there to.

Unit – 5 **Management of working capital (12 Hours):** Meaning—concepts of working capital-- - factors affecting working capital requirements—Problems on estimation of working capital requirement—operating cycle (working capital cycle) Meaning – computation of operating cycle in days.

Skill Development:

1. Identify decision area in which a finance manager has a role to play.
2. List out any ten sources from where get long term and short finance.
3. Collect the financial statement of a company
4. Bring out the capital structure of the company.
5. Identify the problems in computing the cost of capital

Reference Books:

- 1.V.K.Saxena and C.D.Vashist --- Basics of Financial Management
2. Preeti Singh --- Fundamentals of Financial Management
3. Baligar --- Financial Management
4. Dr.S.N.Maheshwari --- Financial Management
5. Reddy, Appannaiah and Satyaprasad --- Financial Management
6. P.V.Kulkarni and B.G.Satyaprasad ---- Financial Management
7. Gerstenberg ---- Financial Management.
8. Sharma and Gupta ----- Fundamentals of financial Management

B.COM FIFTH SEMESTER
5.2: Good and Services Tax - II

Teaching Hours: 5 hours per week, Maximum Marks 80, IA 20 & exam duration 3 hours.

Objective:

1. To equip the students with the knowledge of Goods and Services Tax.
2. To make the B.Com students more knowledgeable in the field of GST, so that they can be self employed as tax consultants / practices.

Unit I: GST Rates (10 Hours): Zero rating, Zero rating of exemptions, Exemption and lower rate of tax for certain items such as food and health care, Abatements (i.e. deductions), GST structure rates.

Unit II: Valuations under GST (15 Hours): Introduction to valuation under GST, Meaning and types of consideration:

- a. Consideration received through money.
- b. Consideration not received in money.
- c. Consideration received fully in money.

Valuation rules for supply of goods and services:

- a. General valuation rules.
- b. Special valuation rules.

Other cases of valuation of supply, Imported services, Imported goods, Valuation for discount, Transaction value: meaning and conditions, inclusive of transaction value, Exclusive discount excluded from transaction value. Methods of valuation, Computed value method, Residual value method. Problems on GST.

Unit III: Composition Scheme (15 Hours): Meaning, Eligibility for Composition Scheme, Tax Rate Applicable, Calculation of Tax Liability under this Scheme. Advantages and Disadvantages.

Unit IV: Payment Process in GST (15 Hours):

Features of payment process

Methods of payment in GST

- i. Payment by tax payers by interest banking through authorized banks.
- ii. Over Counter payment through NEFT (RTGS) from any bank

Unit V: E-way Bill (10 Hours): Meaning, Threshold Limit for Generation of E-way Bill, Calculation of Consignment Value. Form E-way Bill Person Responsible for issuing E-way Bill.

Books for Reference:

1. Goods and Services Taxes: V. S. Datey, Taxmann.
2. Glimpse of Goods and Services Tax, Sathpal Puliana, M. A. Maniyar, Karnataka Law Journal Publications, Bangalore.
3. Goods and Services Tax by Pillani and Maniyar, published by Law Journal, Bangalore.
4. www.gst.gov.in, www.ctax.kar.nic.in

B.COM FIFTH SEMESTER
5.3: Principles and Practice of Auditing

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objectives: To introduce to the students, the basic concepts of auditing acquaint them with the auditing procedure.

Pedagogy: Classroom lectures, seminars, and discussions through presentation (both group and individual).

Unit 1: Auditing (12 Hours): Meaning, Definitions, Objectives, Types of audit, Qualities and qualifications of an auditor. Advantages and limitations of an audit, differences between audit and investigation, Recent Trends in Auditing- Cyber and Data Security, Artificial intelligence and Robotic Process Automation, Data Analytics.

Unit 2: Audit Programme (15 Hours): Meaning, Objectives, Division of work, audit note book, working papers, Routine checking and test checking, Surprise Checking.

Unit 3: Internal check and Vouching (15 Hours): Meaning and definitions, Objectives and advantages, Difference Between Internal check and Internal Audit , Internal check regarding wages, Purchases, Cash receipts. **Vouching:** Meaning, Importance, Objectives, Vouching of cash book, Purchase book, sales book.

Unit 4: Auditing in computerized information system (CIS) environment (12 Hours): Meaning and characteristics of CIS, difference between manual accounting, audit and computerized accounting audit, computer frauds.

Unit 5: Auditor's Report (10 Hours): Meaning, Importance, distinction between reports and certificates, contents of audit reports. Types of audit reports and their specimen.

Skill Development:

1. Collect the information about types of audit conducted in different organizations.
2. Draw specimen vouchers – at least three vouchers for different purposes.
3. Visit an audit firm. Write the name of an audit firm in the record book, and how they prepare draft and vouchers.
4. Give the list of papers maintained in permanent audit file.

Books for Reference:

- | | |
|---------------------------|---|
| 1. Auditing | : By T R Sharma |
| 2. Practical auditing | : By B N Tandon |
| 3. Auditing | : By Jagadeesh Prakash |
| 4. Auditing | : By Kamal Gupta |
| 5. Essentials of auditing | : By Saxena, Reddy, Appanniah and shollapur |

B.COM FIFTH SEMESTER
5.4: Indian Economy

OBJECTIVES:

1. To enable a student to have an overview of the working of Indian economy.
2. To enable a student to understand the changing trends in Indian economy.
3. To enable a student to understand the leading issues in India's economic development.

UNIT -I: CHARACTERISTICS OF THE INDIAN ECONOMY

Meaning of developed and under developed economies, characteristics of the Indian economy as a developing economy, Indian economy on the eve of independence, present status of Indian economy. Role of women in economic development. NITI Aayog: Objectives.

UNIT-II: INDIA'S NATIONAL INCOME

Meaning, definition, concepts, methods of estimating national income, national income estimation in India, trends in growth and structure of India's national income, sectoral contributions to national income, difficulties in estimating national income in India.

UNIT-III: INDIAN AGRICULTURE

Problems of Indian agriculture and remedial measures; Sources of agricultural finance; Agricultural marketing: Defects, Regulated and Co-operative marketing; Irrigation in India; Green Revolution in India; Farmers' suicides: causes and measures to control; Contributions of women to Indian agriculture.

UNIT-IV: INDIAN INDUSTRY

Industrial development since Independence, Cottage and small scale industries in India: Role, problems, remedial measures and prospects; New Industrial Policy 1991.

UNIT -V: INDIAN PUBLIC FINANCE

Sources of revenue of central government: tax and non-tax revenue, Heads of public expenditure: Plan and non-plan expenditure, Trends in central government revenue and expenditure, causes for increasing public expenditure; Public debt in India: Causes and consequences of increasing public debt; GST: meaning, types, merits and demerits.

Skill Development:

1. Visiting APMC and collecting the data on supply sale and prices of different agricultural commodities.
2. Reporting a case study of any cottage or small scale industry.
3. Compilation of data on various components of national income.
4. Visit to the bank / co-operative credit society and collect information about the credit transactions.

Reference Books:

1. Rudday Datt and K.P. Sundaram. "Indian Economy".
2. Rishi Muni, Diwid. "Poverty Development Programme".
3. M.M. Sury, "Indian Economy in the 21st Century Prospects & Challenges"
4. A.N. Agarwal, "Indian Economy" .
5. Mishra & Puri, "Indian Economy".
6. Indian Year Book-Publication Division.
7. www.planningcommision.org.
8. [www.finance](http://www.financeministry.org)ministry.org
9. www.publicationdivision.nic.in
10. www.nic.in
11. www.rbi.org
12. www.epw.org
13. www.cmie.org
14. www.cso.org

B.COM FIFTH SEMESTER
5.5: Computer Application in Business- II

CAB-III: MS-Office and E-Commerce

Theory / week – 4 hours

Practical – 2 Hours

Objective: To train the students to working in office & to introduce the students on online business.

Unit	Topics	No of Periods
1	MS Word: Meaning ,Features, Advantages & Applications of Word Processing, Elements of MS Word Application Window, Toolbars, Entering text, formatting, editing & saving a document Moving & Copying text, Formatting Text & Paragraph, Applying Bullets & Numbering, Find & Replace, Inserting object, Date & Time, Headers & Footers, Auto Correct, Spelling & Grammar Checking. Working with Tables – Inserting, Filing & Formatting a table. Mail Merge – Meaning, Advantages, Creating merged letters.	14
2	Advanced MS Excel : Formulas , Functions (Mathematical, Logical, Statistical, Financial), Graphs (Line, Bar, Area, Pie etc), Data sorting, filtering & Grouping.	08
3	MS Access: Introduction, Data, information, Database file, Record, Fields, Meaning, Features, Advantages & Disadvantages & Application of MS Access. Parts of MS Access Window – Tables, Forms, Queries & Reports – Data Validity Checks	08
4	MS PowerPoint: Introduction, Meaning, Features, advantages & Application of MS PowerPoint. Parts of MS PowerPoint window, menus & toolbars, Creating through auto content wizard, Design templates & Blank Presentation, Slide show – Saving, Opening & Closing a Presentation, Inserting, Editing & Deleting slides, Types of Slides, Slide layouts, Slide views, Insert and modify tables and charts, Add sound and video to a slide presentation, insert clipart images and shapes to slides, Insert and edit animations and slide transitions	10
5	E-Commerce: Overview of E-Commerce, Meaning, E-Commerce based activities, Goals of E-Commerce Technical Components of E-Commerce, Functions, Advantages & Disadvantages of E-Commerce, Scope of E-Commerce, E-Commerce Applications Business Models : B2B, B2C, C2C & C2B.	8
	Lab Work (Practical): MS Word, MS Excel, MS PowerPoint, MS Access – Creating commerce oriented applications.	

Question paper pattern :

- 1. Section A – Answer any 10 from 12 questions each carry 2 marks (10x2=20)**
- 2. Section B – Answer any 3 from 5 questions each carry 5 marks (3x5=15)**
- 3. Section C – Answer any 3 from 5 questions each carry 15 marks (3x15=45)**

Suggested Books:

1. Microsoft Office by Sanjay Saxena
2. Microsoft Office 2007 Professional
3. E-Commerce – Dr Shivani Arora
4. E-Commerce – David Whitely
5. E-Commerce : an Indian Perspective : Joseph

B.COM FIFTH SEMESTER

5.6: Cost Accounting-I

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objectives: 1. To familiarize students with the various concepts and elements of cost.
2. To create cost consciousness among the students.

Pedagogy: Class room lectures, assignments (both group and individual).

Unit I: Concept of Cost: Introduction (12 Hours): Meaning of cost, Cost accounting – Comparison between financial accounts and cost accounts – Objectives and functions of cost accounting – Cost concept and classification of costs-cost unit-cost centre – elements of cost-preparation of cost sheet(Excluding Tender and Quotations). Advantages and limitations of cost accounting.

Unit II: Material Costing (15 Hours): Classification of materials-material Control – purchasing procedure - storekeeping – Techniques of inventory control- setting of stock levels – EOQ – methods of pricing material issues – FIFO, LIFO, simple average and weighted average methods.

Unit III: Labour Costing (15 Hours): Meaning, objectives,– wage payment systems – Time and piece rate – straight piece rate, Taylors differential piece rate, Merrick's multiple piece rate , Incentive plans- Need and Importance –Problems on Halsey and Rowan Plan.

Unit IV: Overhead Costing (15 Hours): Meaning and definition – classifications of overheads – procedure of accounting and control of overheads – allocations of overheads – apportionment of overheads – Apportionment of service department cost to production departments – Direct distribution method, Step ladder method, simultaneous Equation method, repeated distribution method. Absorption of overhead – Methods: Labor Hour, Machine Hours.

Unit- V: Reconciliation of cost and financial accounts (10 Hours): Need for reconciliation – reasons for difference in profits – Problems on preparation of reconciliation statements.

Skill Development:

1. Classification of costs incurred in the making of a product.
2. Identification of elements of costs in service sector.
3. Collection and classification of overheads in an organization.
4. Developing a case for reconciliation.
- 5 Writing the specimen format and a note on the following:
 - a) Bin card b) Stores Ledger c) Material Requisition d) Time and Job card e) Labour cost sheet.

Books for Reference

Cost accounting	:	Jain and Narang
Cost accounting	:	S N Maheshwari
Cost accounting	:	M L Agarwal
Cost accounting	:	Pattenshetty and Paleker
Cost accounting	:	Baligar
Practical costing	:	Khanna, Pandey and Ahuja

B.COM FIFTH SEMESTER

5.7: INCOME TAX – I

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objectives: To familiarize the students with the basic legal provisions and procedural aspects of income Tax.

Pedagogy: Class room lectures, assignments and presentations.

Unit 1 (12 Hours): Concept and terms of income tax: Person, Assessee, Previous year, Assessment year, Income, Casual Income, Gross Total Income, Total Income, Agricultural Income, Exempted Incomes (Concerned only with salary u/s 10).

Residential Status: Rules for determining residential status of Individual, HUF, Firm and Company, determination of residential status, Incidence of tax and residential status, computation of gross total income on the basis of residential status. Practical problems.

Unit II (15 Hours): Income from Salary: Salary, Allowances, perquisites and retirement benefits, deductions. Practical problems.

Unit III: Income from House Property (15 Hours): Annual Value, let out property, self occupied properties, deductions, computation of income from house property. Practical problems.

Unit IV: Income from Business (12 Hours): Depreciation and other permissible deductions, disallowable expenses, income and expenses of illegal business, computation of Business income.

Unit V: Income from Profession(10 Hours): Computation of Doctors, Lawyers, Chartered Accountants, Civil Engineers, Practical problems.

Skill Development Activities:

1. Prepare a list of taxes levied by local authorities in your local area/city.
2. Determination of term “salary” for different purposes, like calculation of HRA, accommodation facility, etc.
3. Collect salary slip, (pay slip) from an employee of an organization.
4. Filing of Tax return (Salary and Income from House Properties)
5. Filling of Challan 270 and 271

Books for reference:

1. Income Tax Law and Practice, by Gaur and Narang
2. Vinod K. Singhania: Students’ Guide to Income Tax, Taxmann Publications, Kapil Singhania, New Delhi.
3. Mehrotra: Income Tax Law & Accounts, Sahitya Bhavan, Agra.
4. Government of India- Income Tax Manual
5. Income Tax Act and Latest Finance Act
6. Income Tax. by M. B. Kadkol

B.COM FIFTH SEMESTER
5.6: BANKING-I

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Unit 1: Structure of commercial banking – Functions, Nationalization of Commercial banks in India – Need, advantages, dis-advantages of Nationalization of Commercial banks.

Unit 2: Central banking: Meaning and functions, RBI objectives, functions regulatory and promotional role.

Unit 3: Non-banking finance companies. Definition, regulations, types of deposits, assets of NBFCS, investment norms for NBFCS, SEBI and RBI guidelines.

Unit 4: Co-operative Banks – Meaning, Structure, Role of co-operative banks in developing economy and regulations of Co-operative banks.

Unit 5: Money and Capital market in India, composition, role of SEBI in developing capital market.

Suggested Reading:

1. Srivatsav R. M.: Indian Financial System, Rishi Publications, Varnashi.
2. Khan M. Y.: Indian Financial System, TMH, New Delhi.
3. Ghosh O. K.: Indian Financial system, Kitab Mahal, Allahabad.
4. Bhole L. M.: Financial Institutions and Markets, TMH, New Delhi.
5. A. Raman: Central Banking in India, Bookland, Calcutta.
6. Rama Rao. B.: Evolution of Central Banking in India, Vora Publishers, New Delhi.
7. Nadier and S. Paul: Commercial Banking in the Economy, Random House, New York.
8. S. Nakkiran : Co-operative Banking in India, Rainbow Publishers, Coimbatore.

B.COM FIFTH SEMESTER
5.7: INSURANCE – I

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Unit I: Meaning and definition of insurance, evolution of insurance, role and importance of insurance, insurance contracts.

Unit II: Life Insurance Contracts: Classifications of policies 1) whole life policy 2) Term insurance 3) Endowment Policy 4) Survivorship policy.

Unit III: Policy Conditions:

i) Conditions relating to commencement of risk ii) condition of premium iii) Conditions relating to policy iv) Lapse- condition v) claim condition.

Unit IV: Investment of Fund: Calculation of premium, surrender value, valuation of surplus.

Unit V: Life Insurance for under privilege (poor and weaker section people)

- i) Industrial life insurance ii) Group life insurance iii) Disability benefit policies
- iv) pensions plans.

Suggested Readings:

Life Insurance Corporation Act, 1956, Govt. of India, New Delhi.

Study course prepared by the Insurance Institute of India, Bombay.

LIC: Tryst with Trust (LIC of India, Bombay)

Hohn H Magee : Life Insurance, The Ronald Press, New York.

S.B.Ackerman : Insurance, The Ronald Press, New York.

Robert Riegel & J.S. Miller : Insurance principles and practices, Prentice Hall, New Jersey.

Journals: Journal of Insurance Institute of India. Dhan Jyoti. Yogakshema Harvard Business Review.

B.COM FIFTH SEMESTER
5.6: Advanced Business Statistics – I

Unit I: Probability Theory: Introduction to Probability, Random experiment, sample space and events, classical, statistical and axiomatic approaches to probability. Addition and Multiplication theorem of probability (with out proof) Conditional Probability and problems on Probability.

Unit II: Mathematical Expectation: Definition of random variable, types of random variables, expected value, Addition and multiplication theorem of expectation. Variance in terms of expectations, Standard results based on Mean and Variance. Problems on expectation and variance.

Unit III: Probability Distributions: Discrete Probability Distributions: Binomial and Poisson, Definitions, Characteristics and applications in Business.

Continuous Probability Distributions: Normal Distributions, Definitions, Characteristics of Normal Distributions, Area under normal curve, Standard normal probability distributions, Application of normal distributions in Business.

Unit IV: Point estimation: Population and sample, parameter, statistic, Sampling Distribution of Statistic, concept of standard error, Point estimation and interval estimation.

Unit V: Hypothesis Testing: Null and Alternative, simple and composite Hypothesis, Critical region, and Acceptance region. Types of error, Level of Significance, Power of test, One tail and Two tail tests.

Teaching: 5 hours/ per week/ per paper

Books for Reference:

S.C. Gupta : Fundamental of Statistics, Himalaya Publications, New Delhi

S.P. Gupta : Statistical methods Sultan Chand and Sons, New Delhi.

Levin and Rubin: Statistics for Management, PHI New Delhi

Chikodi and Satyaprasad : Business Statistics

Sancheti and Kapoor : Business Statistics, Sultan Chand and Sons, New Delhi

B.COM FIFTH SEMESTER
5.7: Advanced Business Statistics –II

Unit I: Large Sample tests: Testing Hypothesis about one Population Mean, Two Population Means, and Problems based on them.

Unit II: Small Sample Tests – I: Student t-test, test for single mean and two means, paired t-test and problems. F-test for equality of two population variances and problems.

Unit III: Small Sample Tests –II: Chi-square test, Degrees of freedom, Condition for the validity of Chi-square test, Chi-square test for goodness of fit, independence of attributes. 2x2 contingency tables, rxc contingency tables, Problems.

Unit IV: Analysis of Variance: Introduction, Definition of analysis of variance (ANOVA) Assumptions and uses of ANOVA. One way Classification, Mathematical Model and Statistical Analysis of one way classification and problems. Two-way Classification: Mathematical model and Statistical analysis of two way classification with one observation per cell and problems.

Unit V: Statistical Quality Control: Definition of quality, Meaning of SQC and its uses, Chance and assignable causes, Process control and product control, Shewharts Control charts for variables, X and R Control charts, Control charts for fraction defectives- p and np charts, Control charts for number of non conformities – c chart.

Teaching: 5 hours/ per week/ per paper

Books for Reference:

Gupta and Kappor: Applied Statistics, Sultan Chand and Sons, New Delhi

S. C. Gupta: Fundamental of Statistics, HPH, New Delhi.

S. P. Gupta: Statistical Methods, Sultan Chand and Sons, New Delhi

Agarwal and Bharadwaj: Business Statistics, Kalyani, New Delhi

Sancheti and Kapoor: Business Statistics, Sultan Chand and Sons, New Delhi

B.COM SIXTH SEMESTER

6.1: Business Law

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objective: To acquaint the students with fundamental aspects of finance in the business.

Pedagogy: Class room lecture, Seminar and presentation.

Unit I: Introduction (08 Hours): Nature and kinds of contracts.

Unit II: Essential elements of a valid contract (15 Hours):

A: Offer and acceptance: definition, rules of valid offer and acceptance and lapse and revocation of offer.

B: Consideration: definition, essentials of valid consideration, validity of an agreement without consideration.

C: Capacity to contract: Minor, Minor's agreements, persons of unsound mind and disqualified persons.

D. Free consent: Coercion-definition-effects of coercion, Undue influence- definition, effects of undue influence; Misrepresentation- definition- effects of misrepresentation; Fraud- definition-can silence be fraudulent? Effects of fraud; Mistake – definition-effects.

E. lawful objective and consideration, What considerations and objects are unlawful, Objects or considerations unlawful in part-effects of illegal agreements on collateral Contracts

F. Agreements expressly declared void: Expressly declared void agreements--- agreements in restraint of marriage; agreements in restraint of Trade; Agreements in restraint of Legal Proceedings; Uncertain agreements; wagering agreements, agreements contingent on impossible events; agreement to do impossible acts – no restitution.

Unit III: Performance of Contracts (15 Hours): Meaning- who can demand performance of contract? By whom contracts must be performed? Performance of Joint promises; Assignment of contracts; order of performance of reciprocal promises; time and place for performance; Applications of payments, contracts which need not be performed. Discharge of Contract: Meaning and modes of discharge of contracts: Breach of Contract : Anticipatory and actual breach—remedies for breach of contract.

Unit IV: Sale of Goods (12 Hours): contract of sale of goods-Meaning and essentials --- performance of contract of sale.

Unit V (12 Hours): Consumer Protection Act- 1986 – meaning definition, consumer disputes redressal agencies.

Cyber Law 1999: Meaning, Cyber Crime, Types, - prevention of Cyber crimes

Skill Development:

1. Draft a rent agreement incorporating all the essential features of a valid agreement.
2. Draft an agreement to repay a loan borrowed from bank on installment basis.
3. Draft a complaint against unfair trade practices adopted by a businessman to the consumer forum
4. Case laws involving points of law of contracts.
5. Draft a specimen of contract of sale.

Suggested Readings:

1. Tulsian : Business Law Tata Mc Graw Hill, New Delhi
2. M.C.Kuchhal : Business Law Vikas Publishers New Delhi.
3. N.D.Kapoor : Business Law Sultan Chand and Co.
4. Ashwathappa.K. and Ramchandra --- Business Law, HPH , Mumbai.
5. Bare Acts
- 6.Garg, Sareen and Chawla ----- Business Law.

B.COM SIXTH SEMESTER
6.2: Human Resource Management

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours.

Objective: the objective of the course is to expose the students to the various aspects of human resource development strategies for better management of people in organizations

Pedagogy: Class room lectures, assignments and presentations.

Unit 1: Human Resource Management (12 Hours): Meaning, elements, objectives, process of HRM, HR Planning-Meaning and objectives , factors and HR plan implementation, HR information system-meaning and steps, Human Resource Development: Meaning, and functions of HRM.

Unit 2: Job Analysis, Recruitment And Selection, (15 Hours): Job Analysis – meaning and process and factors affecting job Analysis , Recruitment and e-recruitment-internal and external sources. Selection: process and barriers to effective selection, e-selection. placement-meaning and problems of placement.

Unit 3: Training and motivation (15 Hours): Training- meaning, objectives, methods and techniques, inputs in training, methods of management development program.

Motivation- meaning, importance, theories of motivation- Maslow's theory, Mcgeror theory and Herzberg Theory.

Unit 4: Compensation and Performance Appraisal (12 Hours) :

Compensation- meaning, importance and factors influencing compensation , significant benefit and services, Performance Appraisal- meaning, objectives and methods of appraisal job evaluation – meaning , methods. meaning of job description, job analysis , job specification.

Unit 5 : Workers Participation and Industrial Relations (12 Hours)-

Worker Participation- importance, limitations and methods of participations,
Industrial Relations – parties to industrial Relations, nature, causes and settlement of disputes.
Contemporary issues in HRM – outsourcing of HR, Objectives BPO and call center, changed employees Expectations

Skill development:--

1. Collection of information about new recruitment sources.
2. Preparation of a chart of job specification and job description.
3. Collect an advertisement copy of a job vacancy and fill it.
4. Conduct an I.Q. test and tell the students to affix its summary to the record.
5. Collect the information about how training is given to workers and managers
6. Preparation of performance appraisal report

Suggested readings:

1. P.Subbarao: Personnel and human resource management, HPM, new Delhi
2. Aswathappa: Human resource & personnel management, THM, New Delhi
3. Fisher Schoen field: Human resource & personnel management, AIPO, Chennai, India
4. Snail & Holden: Human resource & personnel management, McMillan India Ltd., new Delhi
5. Edwinn Flippo: personnel management, McGraw HILL international edition New York.
6. Anuradha Sharma: Strategic Human resource Management, sage publications Aradhanna Khandeka R New Delhi
7. T.V. Rao: human resource management, Sage publications New Delhi

B.COM SIXTH SEMESTER
6.3: Principles of Management Accounting

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objective: To acquaint the students with fundamental aspects of finance in the business.

Pedagogy: Class room lecture, Seminar and presentation.

Unit I: Management Accounting (08 Hours): Definition and objectives of Management Accounting - Relationship between Cost, Financial and Managerial Accounting.

Unit II : Financial Statements (15 Hours): Nature, uses and limitations. Analysis and interpretations – meaning, procedure, objectives, and importance. Comparative statement, Common Size Statements and Trend Analysis - practical problems.

Unit III: Ratio Analysis (15 Hours): Definition and meaning of Ratio Analysis, importance and limitations, Profitability Ratio – Gross profit Ratio, operating Ratio, Overall profitability ratio – Earning per share. Turnover Ratios- Inventory Turnover Ratio, Debtors Turnover Ratio, Debt collection period, Creditors Turnover Ratio, Debt payment period, Liquidity Ratio- current ratio, liquid ratio. Financial positions and Leverage Ratios- Debt Equity Ratio, Proprietary Ratio - Problems thereon.

Unit IV: Analysis through Leverages (12 Hours): Meaning- types of Leverages- operating – financial and combined leverages- problems thereon.

Unit V: Fund Flow Statement (15 Hours): Meaning, uses and limitations – preparation of fund-flow statement.

Cash Flow Statement: Meaning and preparation of Cash flow statement- problems thereon.

Skill Development:

1. Collection of Financial statements of an organization for two years
2. Preparing common size statement and make comparative analysis
3. Calculation of ratios based on the above financial statement.
4. Preparation of funds flow and cash flow statements from the financial statements of an organization, collected.
5. Identifying of current assets, current liabilities, non-current assets and non-current liabilities.

Suggested Readings:

1. Management Accounting by J.Madegowda (Himalaya Publishing House).
2. Management Accounting by Sharma and Gupta
3. Management Accounting by Dr.S.N.Maheshwari
4. Management Accounting by Saxena and Vashist
5. Management Accounting by Dr.S.N.Goyal and Dr. Manmohan
6. Management Accounting by RSN Pillai and Bhagavathi
7. Financial Management by Dr.S.N.Maheshwari.
8. Financial Management by Kulkarni and Satyaprasad.

B.COM SIXTH SEMESTER
6.4: Industrial Economics
(80 Marks of 3 hours duration and 20 marks I.A) 5 hours per week

OBJECTIVES:

- 1) A detailed treatment of issues in industrial economics.
- 2) To familiarize students with policy issues those are relevant to Indian industry.
- 3) To analyze the issues, using basic micro-economic concepts.

UNIT -1: INDUSTRIALISATION

Meaning of industrialization, features of industrial structure, role of Industrialization in India, factors affecting industrialization in India, Industrialization since independence.

UNIT – 2: INDUSTRIAL LOCATION

Location, localization and planned location of industries, factors influencing industrial location, advantages and disadvantages of localization, Theories of location: Weber's and Sargent Florence's theory.

UNIT - 3: INDUSTRIAL GROWTH AND PRODUCTIVITY

Industrial development under plans; Role of public and private sector; Industrial productivity: meaning, definitions, significance and tools of industrial productivity, factors influencing industrial productivity.

UNIT- 4: INDUSTRIAL FINANCE

Meaning, role need and types of Industrial finance, Internal v/s external, Development Financial Institutions: IFCI, SFCs, ICICI, IDBI, SIDBI, IRCI, EXIM Bank etc.

UNIT - 5: PROBLEMS AND PROSPECTS OF SELECTED INDUSTRIES

IT Industries in India: Meaning, major issues, present Status and future Prospects of IT Industries, Contribution of women to IT sector; Problems and prospects of Iron and Steel, Cotton, Textile, Sugar, Cement and Jute industries in India.

Skill Development:

1. Visit to development financial institutions and collect the data on financial assistance to industries.
2. Reporting a case study of any IT industry in India.
3. Visit to the sugar industry and collect information about its working..

Reference Books:

1. Ahluwalia, I.J. (1985): Industrial Growth in India, Oxford University Press, New Delhi.
2. Barthwal, R.R. (1985): Industrial Economics, Wiley Eastern Ltd., New Delhi.
3. Cherunilam, F. (1994): Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
4. Dasai, B. (1999): Industrial Economy in India (3rd Edition), Himalaya Publishing House, Mumbai.
5. Divine, P.J. and R.M. Jones et al. (1976): An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.
6. Government of India: Economic Survey (Annual).
7. Hay, D. and D.J.Morris (1979): Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.
8. Kuchhal, S.C. (1980): Industrial Economy of India (5th Edition), Chaitanya Publishing House, Allahabad.
9. Singh, A. and A.N. Sadhu (1998): Industrial Economics, Himalaya Publishing House, Bombay.

B.COM SIXTH SEMESTER
6.5: Computer Application in Business - III
CAB-IV: Computerized Accounting

Theory / week – 4 hours

Practical – 2 Hours

Objective: Competency to enter accounting transactions in the accounting software and generate different accounting reports / documents.

Unit	Topics	No of Periods
1	Manual Accounting and Computerized Accounting Accounting Basics: Accounting – Meaning & Objectives, Classification of accounts under English system with debit and credit rules, Meaning of Journal, Trial Balance, Opening entries, Final Accounts (Trading, Profit & Loss Account and Balance Sheet), Adjusting Entries, Bank Reconciliation. Computerized Accounting: Meaning, Features, Advantages, Disadvantages & Difference between Manual Accounting and Computerized Accounting	10
2	Tally: Introduction, Meaning, Features, Gateway of Tally, Configuration of Tally Screens & Menus, Creation of Company, Creation of Groups, Editing & Deleting Groups, Creation, Editing & Deleting of Ledgers, Predefined Vouchers, Displaying, Altering & Deleting Vouchers.	10
3	Introduction to Inventories: Creation of stock categories, Stock Groups & Stock Items. Configuration & Features of Stock Items, Editing & Deleting Stocks. Usage of Stocks in Voucher Entry. Purchase Order, Stock Vouchers, Sales Order. Introduction to Cost, Creation of Cost Category Creation of Cost Centers. Editing & Deleting Cost Centers & Categories. Usage of Cost, Cost Category & Cost Centers in Voucher Entry, Budget & Control, Editing & Deleting Budgets.	08
4	Payroll Administration & Generation of Reports: Payroll: Meaning & Features, Activation of Payroll, Processing Basic Payroll in Tally, Salary processing. Reports: Day Books – Trial Balance, Profit & Loss Account, Balance Sheet, Payroll Report, Ratio Analysis, Cash Flow Statement, Fund Flow Statement, Cost Center Report, Inventory Report, Bank Reconciliation Statement. Printing Reports – Types of Printing, Configuration of Options, Printing Format.	10
5	Tax Accounting (Goods & Service Tax): Create Company and Activate GST in Company level, Creating Master & Set GST Rates, Calculation of GST, Creating Tax Ledgers, Transferring Tax Credits of VAT Excise & Service Tax to GST, Recording GST Sales, Recording GST Interstate Sales and Printing Invoices, Recording an Advance to Supplier under GST, Recording GST Local Purchase, Recording GST Interstate Purchase	10
	Lab Work (Practical): Tally in Detail, Problems – transactions without adjustments, with adjustments, with opening balances. Problems on Inventory-without GST & With GST	

Question paper pattern :

- 1. Section A – Answer any 10 from 12 questions each carry 2 marks (10x2=20)**
- 2. Section B – Answer any 3 from 5 questions each carry 5 marks (3x5=15)**
- 3. Section C – Answer any 3 from 5 questions each carry 15 marks (3x15=45)**

Suggested Books:

1. Tally 9 by Dr. Namrata Agarwal
2. Tally 9 by Vishupriya Singh
3. Sai Experts , Computerized Accounting, Sia Publishers & Distributors Pvt Ltd.2018
4. Parag Joshi, Tally ERP9 with GST with solved Problems, Dnyansankool Prakashan I edition
5. Asok K Nadhan : Tally. ERP 9 Training Guide BPB Publications 4 edition 2018
6. Rajesh Chheda Learn Tally ERP 9 with GST & E-Way Bill, Ane VBooks ,3 edition 2018
7. Tally Education Pvt. Ltd, GST Using Tally. ERP 9 Release 6.1, Sahaj Enterprises: I edition 2017
8. Official Guide to Financial Accounting Using Tally. ERP 9 with GST , BPB Publications 4 edition 2018

B.COM SIXTH SEMESTER

6.6: Cost –Accounting – II

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objectives: The objective of this course exposes the students to the tools and technique used in Cost Accounting.

Pedagogy: Classroom lectures, seminars, and discussions through presentation. (Both group and individual)

Unit 1: Unit or output costing (12 Hours): Meaning, objectives, and application of output costing - Procedure – Preparation of Tender and Quotation. Job costing- Meaning, Objectives and application of job order costing- Procedure of job cost system.

Unit 2: Contract costing (15 Hours): Meaning, Definitions, Features- Treatment of certain important costs- contract price, work in progress, work certified and un-certified - Recognition of profits on incomplete contracts. Escalation clause.

Unit 3: Operating Costing (12 Hours): Definitions, Features – Classification of operating costs- Preparation of operating cost sheet of Transport undertakings only.

Unit 4: Process costing (15 Hours): Meaning, features and applications-Treatment of process losses-Normal and Abnormal Losses-Abnormal Gain. Joint products and by-products – Meaning only, Problems on Process Costing.

Unit 5: Marginal costing (10 Hours): Meaning of marginal cost and Marginal costing- a. Contribution, b. Marginal contribution Sales Ratio (P/V Ratio), c. Breakeven point and d. Margin of safety, Problems thereon.

Skill Development

Listing of industries located in your area and methods of costing adopted by them.

1. Prepare a contract account for construction of building
2. Cost estimation for the making of a proposed product.
3. Prepare a job cost sheet
4. Visit anyone of the Manufacturing Units, collect and record the information regarding different
5. stages of production, production overheads, normal and abnormal losses etc.

Books for Reference

1. Cost Accounting : Jain and Narang
2. Cost Accounting : S N Maheshwari
3. Cost Accounting : M L Agarwal
4. Cost Accounting : Pattenshetty and Paleker
5. Cost Accounting : Baligar
6. Practical costing : Khanna Pandey and Ahuja

B.COM SIXTH SEMESTER

6.7: Income Tax- II

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objectives: To enable the students to grasp the practical aspects of the income tax.

Pedagogy: Class room lectures, assignments (both group and individual).

Unit I (15 Hours): Computation of income from capital gains :

Meaning of Capital Assets, types of capital assets, transfer, cost of acquisition, cost of improvement, selling expenses, Intoxication of cost, treatment of advance money received, exemptions, Practical problems.

Unit II (12 Hours): Computation of income from other sources : Specific Income, deductions, grossing-up, practical problems.

Unit III (12 Hours): Chapter VIA: 80C, 80CC, 80D, 80DD, 80DDA, 80DDB, 80E, 80G, and 80U, deductions.

Unit IV (15 Hours): Computation of total income and tax liability of Individuals, Hindu Undivided Family, Partnership Firms, practical problems.

Unit V (12 Hours): Assessment procedure (Theory only), E-filing of IT Returns.

Skill Development activities:

1. Make list of items taxable under the head of income from other sources.
2. Identify the transactions not regarded as transfer of capital gains purpose.
3. Different kinds of forms to be used for filing the returns
4. Filling the forms 49 and 49A
5. Filing returns of Income.
6. Prepare a brief report relating to amendment made in the current Finance Act relating to Income Tax Act.
7. PAN

Books for reference:

1. Students' Guide to Income Tax, By Vinod K. Singhania
- 2 Income Tax Law and Practice By Gaur and Narang
- 3 Income Tax simplified By Basu and Basu
- 4 Law and Practice of Income Tax By Dinakar Pagare
- 5 Income Tax Law and practice By Meherotra and Goyal
- 6 Direct Taxes By B.B. Lall
- 7 Direct Taxes By Singhania V.K.
- 8 Income Tax By M.B.Kadkol

B.COM SIXTH SEMESTER

6.6: Banking - II

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objective: To acquaint the students with fundamental aspects of finance in the business.

Pedagogy: Class room lecture, Seminar and presentation.

Unit I: Development Banking:

Meaning and nature of Development banking, Development Financial Institutions – IDBI, ICICI, SFCS, SIDBI, EXIM Bank- their objectives, functions and achievements.

Unit II: Regional Rural Banks in India, Structure of RRB, Objectives, functions and achievements in developing Indian Economy.

Unit III: Rural Development Banks:

NABARD, PLD, DCC and APEX Banks --- their objectives and functions.

Unit IV: Modern Services of the Banks:

Changing role of commercial Banking – Modern services like ‘e’banking, ATM , issue of credit and debit cards, Green cards.

Unit V: Lending policies of the banks:

Liquidity, profitability and safety. Features and considerations of sound lending--- factors limiting loans.

Skill Development:

- Visit a Development Banking institution and collect information about the services rendered.
- Visit a RRB institution and collect information about the services rendered.
- Visit a RRB and collect information about the financial assistance rendered NABARD
- Visit a Bank and collect information about Modern services like ‘e’banking, ATM , issue of credit and debit cards, Green cards.
- Visit a Bank and collect information about Lending policies

Suggested Readings:

1. Saxena R. M : Development Banking in India, Vora Publishers, Mumbai.
2. Vinod Batra : Development Banking in India, Printwell Publishers, Jaipur
3. Tokhi & Sharma : Rural Banking in India, Oxford and IBM, New Delhi.
4. Desai SSM : Rural Banking in India, Himalaya publishing house.
5. Subramanya K.N : Modern Banking in India, Deep and Deep Publishers, New Delhi.
6. G.M.Laud : Cooperative Banking in India, Co-operators Book Depot.

B.COM SIXTH SEMESTER

6.7: Insurance – II

Teaching Hours: 5 hours per week, Maximum Marks 80, examination duration 3 hours

Objective: To acquaint the students with fundamental aspects of finance in the business.

Pedagogy: Class room lecture, Seminar and presentation.

Unit I: General Insurance: Meaning, definition, types.

Unit II: Marine Insurance Policy: Meaning, definition, classification of policies, policy conditions, premium calculation, marine loss, payment of claims.

Unit III: Fire Insurance: Meaning, nature of fire insurance, fire insurance contract, kinds of policies, policy conditions, rate fixation in fire insurance, payment of claims, re-insurance-Double Insurance.

Unit IV : Miscellaneous Insurance:

a) Motor Insurance: i)Act Liability ii)Third Party iii)Comprehensive Policy procedure of insurance.

b) Insurance: i) Business premises policy ii) Private dwelling policy iii) Jewellery and valuables policy iv) All risk policy v) Money –in- transit policy.

c) Personal Accident Insurance: Medical benefit and hospitalization scheme.

d) Aviation Insurance (Air craft)

e) Contract Guarantee Insurance.

Unit V: Rural Insurance in India: 1) Personal Insurance 2) Property insurance

3) Live-stock Insurance 4) Poultry Insurance 5) Package Insurance 6) Crop Insurance.

Skill Development:

- Develop an innovative insurance product in marine, Fire, Burglary, accident insurance etc.
- List the product features of an existing insurance product
- List the terms of settlement of claims.
- Identity new areas where insurance concept can introduced

Suggested Readings:

1. The General Insurance Business Act, 1972, Govt. of India, New Delhi.
2. S. G. Ackerman: Insurance, The Ronald Press, New York.
3. Robery Riegel and J.S.Miller : Insurance Principles and Practices, Prentice Hall, New Jersey.
4. Study course prepared by the Insurance Institute of India, Bombay.

Journals:

- a. Journal of Insurance Institute of India, Bombay.
- b. Dhan Jyoti, National Insurance Academy, Pune.
- c. Indian Management.
- d. Yogakshema
- e. Harward Business Review

B.COM SIXTH SEMESTER
6.6: Advanced Business Statistics –III

Unit I: Progression:

Arithmetic Progression (AP), Geometric Progression (GP), Sum of n terms of AP and GP
Arithmetic Mean and Geometric Mean.

Unit II: Matrices and Determinants:

Definition of a matrix, Types of matrices, Fundamental operation on matrices, transpose of a matrix, Determinant of a square matrix. Adjoint of a square matrix, Inverse of a square matrix, Solutions of simultaneous linear equations.

Unit III: Permutations and Combinations:

Definitions of permutations and Combinations, Simple problems on ncr and npr.

Number system: Natural numbers, Integers, Rational Numbers, and Irrational Numbers, Real numbers, HCF and LCF

Unit IV: Correlation and Regression Analysis:

Definition of Correlation, Types of Correlation, Scatter diagram, Properties of Correlation coefficient, Karl-Pearsons Correlation coefficient, Spearman's rank Correlation and problems, Definitions of Regression and Regression Coefficient, Properties of Regression Coefficient. Regression equations of y on x and that of x on y and problems, comparison of correlation and Regression Analysis.

Unit V: Sampling Theory.

Meaning and scope, types of sampling, systematic random sampling, stratified random sampling, systematic sampling, definition, Merits and Demerits of each uses, and errors of sampling and census and sample surveys.

Teaching: 5 hours/ per week/ per paper

Books for Reference:

Sancheti and Kapoor: Business Mathematics

Oak and Others: Business Mathematics, Himalaya Publication House.

B.H Suresh: Business Mathematics

Sampatkumar: Sampling Theory

S.C. Gupta: Fundamental of Statistics, Himalaya Publications New Delhi.

B.COM SIXTH SEMESTER
6.7: Advanced Business Statistics – IV

Unit I: Linear Programming Problem (LPP):

Introduction, mathematical formulation, general structure of an LPP, canonical form and standard form of LPP. Graphical method for solving LPP Simplex algorithm.

Unit II: Transportation Problem (TP):

Meaning and Definition of TP, Balanced and Unbalanced Transportation Problems. Finding initial basic feasible solution to Transportation problem by North-West corner rule, Least cost method and Vogel's approximation method. Test for optimality.

Unit III: Assignment and Replacement Problem:

Meaning and Definition of an Assignment problem, Assignment algorithm and example on it. Need for replacement, replacement of items that deteriorate with time (discrete case only) without considering change in the money value.

Unit IV: Game Theory:

Introduction to games, n-person game, 2 person zero-sum game, saddle point, mixed and pure strategies, Minimax and maximin Principle and Dominance property.

Unit V: Inventory Theory:

Meaning of Inventory and its need.

Inventory costs, Lead time, Stock replenishment, time horizon, EQQ Model, with and without shortages, (without derivations), case of deterministic uniform demand, Instantaneous production and no lead time.

Teaching: 5 hours/ per week/ per paper

Books for Reference:

H.A. Taha: Operation Research.

Kanti Swaroop: Operation Research, Sultan Chand and Sons, New Delhi

S.D.Sharma: Operation Research, Nath and Co.

J.K Sharma: Operation Research.

B.Com __ Semester Degree Examination
Subject Code and Subject

Instructions to the candidate:

Max. Time: 3 hours

Max. Marks: 80

Section A

10*2=20

1. This section should contain one question containing twelve sub-questions and candidates have to attempt any ten questions, each carrying two marks.

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.
- i.
- j.
- k.
- l.

Section B

3*5=15

This section should contain five questions and candidates have to attempt any three questions and each question carrying 5 marks.

- 2.
- 3.
- 4.
- 5.
- 6.

Note: In subjects related with numerical expressions, at least three questions should be on numerical exercises (Problems).

Section C

3*15=45

This section should contain five questions and candidates have to attempt any three questions and each question carrying 15 marks.

- 7.
- 8.
- 9.
- 10.
- 11.

Note: In subjects related with numerical expressions, at least three questions should be on numerical exercises (Problems).