

B.Com. (Hons.) : Semester III
Paper BCH 3.4 : BUSINESS STATISTICS

Marks : 100

Lectures: 52, Practical: 26

Theory : 70

Practical : 30

Internal Assessment -20

Term End Exam - 50

Marks : 100

Lectures: 52, Practical Lab 26

Objectives: The objective of the course is to familiarizes students with the basic statistical tools used for managerial decision-making.

Unit 1: Statistical Data and Descriptive Statistics

9 Lectures 14

- Nature and Classification of data: univariate, bivariate and multivariate data; time-series and cross-sectional data.
- Measures of Central Tendency
 - Mathematical averages including arithmetic mean, geometric mean and harmonic mean. Properties and applications.
 - Positional Averages
Mode and Median (and other partition values including quartiles, deciles, and percentiles) (including graphic determination)
- Measures of Variation: absolute and relative.
Range, quartile deviation, mean deviation, standard deviation, and their coefficients, Properties of standard deviation/variance
- Skewness: Meaning, Measurement using Karl Pearson and Bowley's measures; Concept of Kurtosis

Unit 2: Probability and Probability Distributions

10 Lectures 14

- Theory of Probability. Approaches to the calculation of probability; Calculation of event probabilities. Addition and multiplication laws of probability (Proof not required); Conditional probability and Bayes' theorem (Proof not required)
- Expectation and variance of a random variable
- Probability distributions:
 - Binomial distribution: Probability distribution function. Constants. Shape, Fitting of binomial distribution

- Poisson distribution: Probability function, (including Poisson approximation to binomial distribution), Constants, Fitting of Poisson distribution
- Normal distribution: Probability distribution function, Properties of normal curve, Calculation of probabilities

Unit 3: Simple Correlation and Regression Analysis

10 Lectures 14

- Correlation Analysis: Meaning of Correlation: simple, multiple and partial; linear and non-linear, Correlation and Causation, Scatter diagram, Pearson's co-efficient of correlation; calculation and properties (Proof not required). Correlation and Probable error; Rank Correlation.
- Regression Analysis: Principle of least squares and regression lines, Regression equations and estimation; Properties of regression coefficients; Relationship between Correlation and Regression coefficients; Standard Error of Estimate and its use in interpreting the results.

Unit 4: Index Numbers and Time Series

10 Lectures 14

Meaning and uses of index numbers; Construction of index numbers: fixed and chain base: univariate and composite. Aggregative and average of relatives – simple and weighted.

Tests of adequacy of index numbers, Base shifting, splicing and deflating. Problems in the construction of index numbers; Construction of consumer price indices.

Components of time series; Additive and multiplicative models; Trend analysis: Fitting of trend line using principle of least squares – linear, second degree parabola and exponential. Conversion of annual linear trend equation of quarterly/monthly basis and vice-versa; Moving averages; Seasonal variations: Calculation of Seasonal Indices using Simple averages.

Unit 5 : Sampling Concepts, Sampling Distributions and Estimation

5 Lectures 14

Sampling: Populations and samples, Parameters and Statistics, Descriptive and inferential statistics; Sampling methods (including Simple Random sampling, Stratified sampling, Systematic sampling, Judgement sampling, and Convenience sampling)

Concept of Sampling distributions and Theory of Estimation: Point and Interval estimation of means (large samples) and proportions.

Practical – 30

The students will be familiarized with software (MS-Excel) and the statistical and other functions contained therein related to formation of frequency distributions and calculation of averages, measures of Dispersion and variation, correlation and regression co-efficient.

Note:

1. There shall be 4 Credit Hrs. for Lectures + one Credit Hr. (Two Practical Periods per week per batch) for Practical Lab + one Credit Hr. for Tutorials (per group)
2. Latest Edition of text books may be used.

Suggested Readings:

1. Levin, Richard, David S. Rubin, Sanjay Rastogi, and HM Siddiqui. Statistics for Management. 7th ed., Pearson Education.
2. David M. Levine, Mark L. Berenson, Timothy C. Krehbiel, P.K. Viswanathan, Business Statistics: A First Course, Pearson Education.
3. Siegel Andrew F. Practical Business Statistics. McGraw Hill Education.
4. Gupta, S.P., and Archana Agarwal. Business Statistics, Sultan Chand and Sons, New Delhi.
5. Vohra N.D., Business Statistics, McGraw Hill Education.
6. Murray R Spiegel, Larry J. Stephens, Narinder Kumar. Statistics (Schaum's Outline Series), McGraw Hill Education.
7. Anderson, Sweeney, and Williams, Statistics for Students of Economics and Business, Cengage Learning.

B.com (Hons) 5th semester
Course no. C-XII
PAPER: BCH-CC-502 : FUNDAMENTALS OF FINANCIAL MANAGEMENT
TOTAL CREDIT: 5
FULL MARKS: 70
Internal Assessment -20
Term End Exam - 50

Marks : 70

Lectures: 50

Objectives: To familiarize the students with the principles and practices of financial management.

CONTENTS

Unit 1: Introduction

10 Lectures 14

Nature, scope and objective of Financial Management, Time value of money, Risk and return (including Capital Asset Pricing Model), Valuation of securities – Bonds and Equities.

Unit 2: Investment Decisions

10 Lectures, 16 Practical Lab 14

The Capital Budgeting Process, Cash flow Estimation, Payback Period Method, Accounting Rate of Return, Net Present Value (NPV), Net Terminal Value, Internal Rate of Return (IRR), Profitability Index, Capital budgeting under Risk – Certainty Equivalent Approach and Risk-Adjusted Discount Rate.

Unit 3: Financial Decisions

10 Lectures, 10 Practical Lab 14

Cost of Capital and Financing Decision; Sources of long-term financing Estimation of components of cost of capital. Methods for Calculating cost of equity capital, Cost of Retained Earning, Cost of Debt and Cost of Preference Capital, Weighted Average cost of capital (WACC) and Marginal cost of capital. Capital structure – Theories of Capital Structure (Net Income, Net Operating Income, MM Hypothesis, Traditional Approach). Operating and financial leverage; Determinants of capital structure.

Unit 4: Dividend Decisions

10 Lectures 14

Theories for Relevance and irrelevance of dividend decision for corporate valuation; Cash and stock dividends; Dividend policies in practice.

Unit 5 : Working Capital Decisions

10 Lectures 14

Concepts of working capital, the risk-return trade off, sources of short-term finance, working capital estimation, cash management, receivables management, inventory management and payables management.

Suggested Readings:

1. James C. Van Horne and Sanjay Dhamija, Financial Management and Policy, Pearson Education.
2. Levy H. and M. Sarnat, Principles of Financial Management, Pearson Education.
3. Brigham and Houston, Fundamentals of Financial Management, Cengage Learning.
4. Khan and Jain, Basic Financial Management, McGraw Hill Education.
5. Prasanna Chandra, Fundamentals of Financial Management, McGraw Hill Education.
6. Singh, J.K. Financial Management – Text and Problems, Dhanpat Rai and Company, Delhi.
7. Rustagi, R.P. Fundamentals of Financial Management, Taxmann Publication Pvt. Ltd.
8. Singh, Surender and Kau, Rajeev, Fundamentals of Financial Management, Mayur Paperback, New Delhi.
9. Pandey, I.M. Financial Management, Vikas Publications.
10. Bhubatosh Banerjee, Fundamentals of Financial Management, PHI Learning.
11. G.S. Reddy, Financial Management, Himalaya Publishing House
12. Kulkarni & Satyaprasad, Financial Management, Himalaya Publishing House

B.com (Hons) 5TH semester

Course no. C-XII LAB

PAPER: BCH-CC -503 : PRACTICAL ON FUNDAMENTALS OF FINANCIAL MANAGEMENT

TOTAL CREDIT: 1

FULL MARKS: 30

Practical - 30

**The students will work on Spreadsheet (MS-Excel) for doing basic calculations in
finance (Unit 2 and 3 Course no. C-XII**

PAPER: BCH-CC -502 : FUNDAMENTALS OF FINANCIAL MANAGEMENT above)