

**II. GENERIC ELECTIVE (GE 2A):**

(Credits: Theory-05, Tutorial-01)

**Marks : 100 (ESE 3Hrs) =100****Pass Marks Th ESE = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

*There will be two group of questions. Group A is compulsory and will contain three questions. Question No.1 will be very short answer type consisting of ten questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type six questions of 20 marks each, out of which any four are to answer.*

**Note:** *There may be subdivisions in each question asked in Theory Examinations.*

**BUSINESS STATISTICS****Theory: 75 Lectures; Tutorial: 15 Lectures**

**Objective:** *The objective of the course is to familiarize students with the basic statistical tools used to summarized and analyze quantitative information for decision making.*

**Expected learning outcomes:** *The student is expected to be equipped with the tools of processing and description of statistical data. In addition, the student would develop competence to use computer for statistical calculation especially for comparatively large size problems.*

**Unit I: Statistical data and descriptive statistics:****1.1 Measurement of central tendency**

- a) Mathematical average including arithmetic mean, Geometric mean and Harmonic mean. Properties and applications.
- b) Positional average  
Mode and Median (and other partition values including quartiles, deciles and percentiles including graphic determination).

**1.2 Measures of variation: Absolute and relative.**

Range, Quartile Deviation, Mean Deviation, Standard Deviation and their coefficient, properties of standard deviation/variation.

**1.3 Skewness: Meaning, measurement using Karl Pearson and Bowley's measure.****Lectures: 25****Unit II: Probability:****2.1 Theory of probability, Approaches to the calculation of probability.****2.2 Calculation of event probabilities, Addition and multiplication laws of probability (proof not required).****2.3 Conditional probability and Bayes theorem (proof not required)****Lectures: 15****Unit III: Simple correlation and regression analysis:**

**3.1 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

**3.2 Regression analysis.** Principles of least square and regression lines, Regression equation and estimation, properties of regression co-efficient, relationship between correlation regression coefficients, Standard error of Estimate

**Lectures: 12**

**Unit IV: Index Numbers:**

- 4.1 Meaning and use of Index Numbers. Constructions of Index Numbers: Fixed and chain base: Aggregative and average of relatives/simple and weighted.
- 4.2 Tests of adequacy of Index numbers, Base shifting, splicing and deflating, Problems in the constructions of Index numbers.
- 4.3 Constructions of consumer price indices. Important share price indices, including BSE SENSEX and NSE NIFTY.

**Lectures: 12****Unit V: Time series analysis:**

- 5.1 Component of time series. Additive and multiplicative models.
- 5.2 Trend analysis. Fitting of trend line using principle of least square- linear, second degree parabola and exponential. Conversion of annual linear trend equation to quarterly/monthly basis and vice – versa, Moving averages
- 5.3 Seasonal variation. Calculation of seasonal indices using simple averages, ratio to trend, and ratio to moving averages methods. Using of seasonal indices.
- The student will be familiarized with software and the statistical and other functions contained therein related to formation of frequency distributions and calculation of averages , measures of variation, correlation and regression coefficient.

**Lectures: 11****Suggested Readings:**

- Levin, Richard, David S. Rubin, Rastogi and Siddiqui. Statistics for Management 7<sup>th</sup> Edition Pearson Education
  - Berenson and Levine. Basic Business Statistics: Concepts and Applications. Pearson Education.
  - Siegel Andrew F. Practical Business Statistics McGraw Hill.
  - Vohra N.D. Business Statistics McGraw Hill.
  - Spiegel M.D. Theory and Problems of Statistics. Schaum's Outlines Series. McGraw Hill Publishing
  - Gupta S.P. and Archana Gupta Statistics Methods. Sultan Chand and Sons, New Delhi.
  - Gupta S.C. Fundamentals of Statistics. Himalaya Publishing House.
  - Anderson Sweeney and William, Statistics for Student of Economics and Business, Cengage Learning.
  - Thakural J.K. Business Statistics.
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**III. GENERIC ELECTIVE (GE 2B)**

(Credits: Theory-05, Tutorial-01)

**Marks : 100 (ESE 3Hrs) =100****Pass Marks Th ESE = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

*There will be two group of questions. **Group A is compulsory** and will contain three questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of 20 marks each, out of which any four are to answer.*

**Note:** *There may be subdivisions in each question asked in Theory Examinations.*

**BUSINESS MANAGEMENT****Theory: 75 Lectures; Tutorial: 15 Lectures**

**Unit-I: An overview** – Introduction, concept, nature, process and significance of Management. Principles of Management Function of Management, difference between organization, Administration & Management. **Lectures 15**

**Unit-II: Organization** – Meaning, principles, types of organization, merits & demerits of various types of organization. **Lectures 15**

**Unit-III: Personnel Functions** – Methods of Wages payment, incentive methods of wage payment, merits & demerits of various methods. **Lectures 10**

**Unit-IV: Scientific Management & Rationalization** – Meaning, Principle, objectives, limitation & suggestion, Difference between Scientific Management & Rationalization. **Lectures 15**

**Unit-V: Business Combination** – Meaning & definition, causes of combination, types of combination, Forms of combination, advantage and disadvantages of combination. **Lectures 10**

**Unit-VI: Securities Market** – Stock Exchange, Functions – importance, various transactions, regulation of stock exchanges & SEBI. **Lectures 10**

**Suggested Readings:**

- ☐ Drucker P.F – Management Challenges of the 21<sup>st</sup> century Butterworth Heinemann Oxford.
- ☐ Y.K Bhushan –Fundamentals of Business Organization and Management, Sultan Chand.
- ☐ Dinkar Pagare – Business Organization, Sultan Chand.
- ☐ M.C Shukla – Business Organizations, S. Chand (P) Ltd. New Delhi.