

Subject Code:1CM1010604

Subject Title: Business Statistics-2

Course Objective: To make the students aware about the different statistical methods, that is applicable in corporate world.

| Teaching Scheme (Hours per week) | | | | Evaluation Scheme (Marks) | | |
|----------------------------------|----------|-----------|--------|---------------------------|--------------------------|-------|
| Lecture | Tutorial | Practical | Credit | University Assessment | Institutional Assessment | Total |
| 3 | 0 | 0 | 3 | 70 | 30 | 100 |

Subject Contents

| Sr. No | Topic | Total Hours | Weight (%) | | | | |
|---|---|--------------|------------------------|---|---------------------------------|---|-----|
| 1 | <p>Co-ordinate Geometry: Co-ordinate of a point, slope and intercepts of a line joining two points, Equation of a straight line, Derive the different forms of equation of a straight line.</p> <table border="1" style="width: 100%;"> <tr> <td style="text-align: center;">$y = mx + c$</td> <td style="text-align: center;">$y - y_1 = m(x - x_1)$</td> </tr> <tr> <td style="text-align: center;">$\frac{y - y_1}{y_1 - y_2} = \frac{x - x_1}{x_1 - x_2}$</td> <td style="text-align: center;">$\frac{x}{a} + \frac{y}{b} = 1$</td> </tr> </table> | $y = mx + c$ | $y - y_1 = m(x - x_1)$ | $\frac{y - y_1}{y_1 - y_2} = \frac{x - x_1}{x_1 - x_2}$ | $\frac{x}{a} + \frac{y}{b} = 1$ | 9 | 25% |
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| $\frac{y - y_1}{y_1 - y_2} = \frac{x - x_1}{x_1 - x_2}$ | $\frac{x}{a} + \frac{y}{b} = 1$ | | | | | | |
| 2 | <p>Analysis of Time Series: Meaning and Scope of Time Series, Causes of variations in time series data, Components of a time series, Determination of Trend- Moving averages method and method of least squares for linear trend, Computation of Seasonal variations by the method of moving averages, Seasonal indices by Simple averages and ratio-to-moving averages methods.</p> | 9 | 25% | | | | |
| 3 | <p>Partial Differentiation: Definition of partial derivative involving two variables only up to first and second order. Idea of linear homogeneous function, Eulers's theorem (statement only) and its applications, Use of partial derivatives in problems relating to utility maximization functions and cost minimization under constraints.</p> | 9 | 25% | | | | |
| 4 | <p>Elements of Decision Theory: Basic structure of decisions, Classical basis of pay-off matrix models, Pay-off matrix under conditions of risk, expected value with minimum-maximum and maximum-minimum, Horwitzs and Laplace criteria, Expected monetary value (EMV).</p> | 9 | 25% | | | | |

Reference Books:

1. Business Statistics by Rana, Dalal and others By Sudhir Prakashan, Ahmedabad
2. Hooda R.P. : Statistics for Business and Economics, Macmillan, New Delhi
3. David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, Statistics For Business and Economics, South-Western Cengage Learning India Pvt. Ltd. New Delhi.
4. Sancheti & Kapoor : Business Mathematics, Sultan Chand & Sons, New Delhi
5. Mukhopadhyay, P. Mathematical Statistics, New Central Book Agency, Calcutta