**St. Joseph's College of Commerce (Autonomous)**
**#163, Brigade Road, Bangalore – 560 025**

**LESSON PLAN (MODULE WISE)**

**PROGRAMME: B.COM (Professional - International Accounting & Finance)**
**SEMESTER: V**
**SUBJECT & CODE:  C415MC502: BUSINESS STATISTICS**

**Lecture Hours: 60**

**OBJECTIVE:**

To understand and familiarize the students with the concepts and techniques of forecasting and its application in business decision-making

| Sl. No | UNIT & OBJECTIVES | No. of Lecture Hours | Methodology/ Instructional Techniques | Evaluation/ Learning Confirmation |
|---|---|---|---|---|
| MODULE 1 | **PROBABILITY DISTRIBUTION**<br><br>**Objective:**   To understand the concepts of probability, random variables, and probability distributions | **Total 12** | | |
| 1. | Baye's Theorem, Random Variable, Expectation and Variance of Random Variable | 5 | Lecture, Discussions, and Problem – Solving | Quiz/Test |
| 2. | Probability distributions - Binomial, Poisson and Normal distributions with business applications. | 7 | Lecture, and Problem – Solving | Question and Answer |
| MODULE 2 | **CORRELATION ANALYSIS**<br><br>**Objective:**        To understand how correlation is used to analyze relationships pertaining to business variables. | **Total 10** | | |
| 1. | Concept of corrleation | 1 | Lecture and | Quiz/Test/ |

| | | | Discussions | Assignment |
|---|---|---|---|---|
| 2. | Types and Methods – Scatter Diagram, Karl Person's & Spearman's Rank Correlation of Coefficient | 6 | Lecture, and Problem – Solving | Question and Answer |
| 3. | Lag and Lead in Correlation | 3 | Lecture, and Problem – Solving | Question and Answer |
| **MODULE 3** | **REGRESSION ANALYSIS**<br><br>**Objective:** To understand the how regression analysis is used to predict business outcomes. | **Total**<br><br>**10** | | |
| 1. | Concept of regression | 1 | Lecture, and Discussion | Assignment |
| 2. | Properties of Regression Co-efficient - Methods | 3 | Lecture, and Problem – Solving | Question and Answer |
| 3 | Linear Regression – difference between Correlation and Regression | 6 | Lecture, and Discussions | Question and Answer |
| **MODULE 4** | **TIME SERIES ANALYSIS**<br><br>**Objective:** To understand and apply the concepts and methods underlying the analysis of time series, and interpretation of business results. | **Total**<br><br>**10** | | |
| 1. | Meaning – Definition – types | 2 | Lecture, and Discussion | Question and Answer/Test |
| 2. | Methods of Solving Secular Trend Analysis - Moving Averages | 5 | Lecture, and Problem – Solving | Question and Answer |
| 3 | Least Squares Method (Linear) – Semi - Averages Method | 3 | Lecture, and Problem – Solving | Question and Answer |
| | **DECISION THEORY** | **Total** | | |

| MODULE 5 | **Objective:** To understand the different decision-making environment and problem-solving under different business situations. | 10 | | |
|---|---|---|---|---|
| 1. | Meaning - Process of Decision Making | 1 | Lecture and Discussions | Question and Answer |
| 2. | Elements - Types of Decision-Making | 2 | Lecture, and Problem – Solving | Question and Answer |
| 3. | Situations - Decision-Making under Certainty - Uncertainty and Risk | 3 | Lecture, and Problem – Solving | Question and Answer |
| 4. | Bayesian Approach - Decision Tree Technique | 4 | Lecture, and Problem – Solving | Test/Quiz/ MCQ |
| MODULE 6 | **SIMULATION** **Objective:** To understand the generation of random numbers and use of simulation technique to solve business problems. | **Total** **8** | | |
| 1. | Essence of Simulation | 1 | Lecture and Discussions | Question and Answer |
| 2. | Applications of Simulation - Generation of Random Numbers | 3 | Lecture, and Problem – Solving | Question and Answer |
| 3. | Solving Problems using Monte - Carlo Technique | 4 | Lecture, and Problem – Solving | Question and Answer/Test/ MCQ |

**BOOKS FOR REFERENCE:**

❖ *ACCA approved Study Materials – Becker, Kaplan and BPP.*

- ❖ *C. B. Gupta: Statistics, Himalaya Publications.*
- ❖ *Chikkodi & B. G. Satya Prasad: Business Statistics, Himalaya Publications.*
- ❖ *Dr. Asthana: Elements of Statistics,Chaitanya.*
- ❖ *Dr. B. N. Gupta: Statistics, Sahitya Bhavan, Agra.*
- ❖ *Dr. Sancheti & Kapoor: Statistics Theory, Methods and Application.*
- ❖ *Ellahance: Statistical Methods.*
- ❖ *S. P. Gupta: Statistical Methods, Sultan Chand, Delhi.*

**PROBABLE DATES & NATURE OF CIA:**

1. First CIA (10 marks): Between June 28th – July 5th, 2018 – Written Test.

2. Mid Term Exams (20 marks): July end – August first week, 2018.

3. Second CIA (10 marks): Between August 20th - 28th, 2018 – Assignment/Project.

Prepared By:                                                          Approved By:

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