

TEACHING LESSON PLAN

B.Com (Int A/c & fin) V Semester 2017-18

SUBJECT: Business Statistics

MODULE –1: Probability Distributions

UNIT/ SESSION / HOURS (TIME REQUIRED)	TOPICS FOR STUDENT PREPARATION (INPUT)	PROCEDURE (PROCESS)	LEARNING OUTCOME (OUTPUT)	ASSESSMENT
12 Hours	Baye’s Theorem, Random Variable, Expectation and Variance of Random Variable, Probability distributions – Binomial, Poisson and Normal distributions with business applications.	Lecture, Workout Problems.	The student is able to solve problems on bayes theorem and different probability distributions	Online test for CIA

MODULES –2 Correlation Analysis

UNIT/ SESSION / HOURS (TIME REQUIRED)	TOPICS FOR STUDENT PREPARATION (INPUT)	PROCEDURE (PROCESS)	LEARNING OUTCOME (OUTPUT)	ASSESSMENT
10 Hours	Types and Methods- Scatter Diagram, Karl Person’s & Spearman’s Rank Correlation of Coefficient – Lag and Lead in Correaltion.	Flip class on the concept. Lecture, work out problems	Understands the meaning of correlation. Able to solve problems both manually and on SPSS	Assignment &Test

MODULE –3: Regression Analysis

UNIT/ SESSION/ HOURS (TIME REQUIRED)	TOPICS FOR STUDENT PREPARATION (INPUT)	PROCEDURE (PROCESS)	LEARNING OUTCOME (OUTPUT)	ASSESSMENT
10 Hours	Properties of Regression Co-efficient- Methods – Linear Regression –difference Between Correlation and Regression.	Online material to read through before class. Lecture, work out problems	Understands the meaning of Regression and able to connect the concept with correlation. Able to solve problems both manually and through SPSS.	Written Test

Module 4: Time Series Analysis

MODULE – UNIT/ SESSION/ HOURS (TIME REQUIRED)	TOPICS FOR STUDENT PREPARATION (INPUT)	PROCEDURE (PROCESS)	LEARNING OUTCOME (OUTPUT)	ASSESSMENT
10 Hours	Meaning – Definition – types – Methods of Solving Secular Trend Analysis- Moving Averages – Least Squares Method (Liner) – Semi-Averages Method.	Lecture, work out problems & Case Study	Student is able to understand the utility of Time series analysis. Able to solve problems and forecast data using different methods	Assignment & Test

MODULE –5: Decision Theory

UNIT/ SESSION/ HOURS (TIME REQUIRED)	TOPICS FOR STUDENT PREPARATION (INPUT)	PROCEDURE (PROCESS)	LEARNING OUTCOME (OUTPUT)	ASSESSMENT
10 Hours	Meaning- Process of Decision Making – Elements – Types of Decision – Making Situations- Decision- Making under Certainty – Uncertainty and Risk- Bayesian Approach – Decision Tree Technique	Online video on terminologies and concepts. Solving Problems	Student is able to read a situation and convert into mathematical form for problem solving. Is able to solve problems through different criterion & decision tree approach.	Presentations , Assignments and Tests

MODULE –6: Simulation

UNIT/ SESSION/ HOURS (TIME REQUIRED)	TOPICS FOR STUDENT PREPARATION (INPUT)	PROCEDURE (PROCESS)	LEARNING OUTCOME (OUTPUT)	ASSESSMENT
8 Hours	Essence of Simulation – Applications of Simulation – Generation of Random Numbers, Solving Problems using Monte-Carlo Technique.	Online video on terminologies and concepts. Solving Problems	Student is able to read a situation and convert into mathematical form for problem solving. Is able to solve problems using Monte Carlo Technique.	Assignments and Tests

Step 2- LESSON PLAN PREPARATION HOURLY WISE

Subject Name: 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/Instr unctional techniques	Evaluation/ learning confirmation
Module I	Probability Distributions	12		
1.	Baye's Theorem,	3	Lecture, Problems and Solutions	Question and Answer
2.	Random Variable, Expectation and Variance of Random Variable,	2	Lecture, Problems and Solutions	Question and Answer
3.	Probability distributions – Binomial, Poisson	4	Lecture, Problems and Solutions	Question and Answer
4.	Normal distributions	3	Lecture, Problems and Solutions	Assignment
Module 2	Correlation Analysis	10		
1.	Types and Methods- Scatter Diagram	2	Flip Class, Lecture, Examples	Quiz
2.	Karl Person's Correlation Coefficient	4	Lecture, Problems and Solutions	Question and Answer
3.	Spearman's Rank Correlation of Coefficient	3	Lecture, Problems and Solutions	Question and Answer
4.	Lag and Lead in Correaltion.	1	Lecture, Problems and Solutions	Case Study
Module 3	Regression Analysis	10		

1.	Properties of Regression Co-efficient- Methods	3	Flip Class, Lecture, Problems and Solutions	Question and Answer
2.	Linear Regression	4	Lecture, Problems and Solutions	Question and Answer
3.	Difference between Correlation and Regression	3	Lecture, Problems and Solutions	Lab session
Module 4	Time Series Analysis	10		
1.	Meaning – Definition – types	1	Lecture, Problems and Solutions	Question and Answer
2.	Methods of Solving Secular Trend Analysis	2	Lecture, Problems and Solutions	Question and Answer
3	Least Squares Method (Linear)	3	Lecture, Problems and Solutions	Question and Answer
4	Moving Averages	3	Lecture, Problems and Solutions	Case Study
5	Semi- Averages Method	1	Lecture, Problems and Solutions	Question and Answer Assignment
Module 5	Decision Theory	10		
1.	Meaning- Process of Decision Making – Elements – Types of Decision – Making Situations-	2	Videos on the concept	Question and Answer
2.	Decision- Making under Certainty – Uncertainty and Risk	4	Lecture, Problems and Solutions	Question and Answer , Case Study
3.	Bayesian Approach	1	Lecture, Problems and Solutions	Question and Answer
4.	Decision Tree Technique	3	Lecture, Problems and Solutions	Question and Answer , Case Study
Module 6	Simulation	8		

1.	Essence of Simulation – Applications of Simulation – Generation of Random Numbers	3	Lecture, Problems and Solutions	Question and Answer
2.	Solving Problems using Monte- Carlo Technqie	5	Lecture, Problems and Solutions	Question and Answer , Case Study

Note 1: First three modules are the portions for the Mid Term Test

REFERENCE BOOKS:

Sl. No.	Author's Name	Name of the Textbook
1	Becker, Kalpan and BPP	ACCA Approved Study Material
2	C. B. Gupta	Statistics
3	Chikkodi & B.G. Satya Prasad	Business Statistics
4	Sancheti & Kapoor	Statistics Theory Methods and Applications
5	Dr. Asthana	Elements Of Statistics
6	Dr. B. N. Gupta	Statistics
7	S. P. Gupta	Statistical Methods
8	Ellahance	Solving Problems using Monte- Carlo Technqie