

LESSON PLAN

SEMESTER	SUBJECT CODE	SUBJECT TITLE	L	T	P	C
IV	UIT1241	BASIC STATISTICAL METHODS	4	1	0	5
OBJECTIVE	To impart analytical ability and to solve real life problems pertaining to branches of Information Technology					

LECTURE NUMBER	TOPIC	REFERENCE
1,2	UNIT:I Introduction to Statistical methods. Scope, characteristics and limitations of Statistics.	1,2,3
3,4,5	Graphical and diagrammatical representation of Statistical data	1,2,3
6,7	Measures of Central tendency: Arithmetic mean - for individual, discrete and continuous series. Merits and demerits of Arithmetic mean.	1,2,3
8,9	Geometric mean, Harmonic mean for individual, discrete and continuous series and its merits and demerits.	1,2,3
10,11,12	Median for individual, discrete and continuous series and its merits and demerits.	1,2,3
13,14,15	Mode for individual, discrete and continuous series and its merits and demerits.	1,2,3
16,17,18	UNIT:II Measures of dispersion: Range, Mean deviation for individual, discrete and continuous series and its merits and demerits.	1,2,3
19,20,21	Quartile deviation, Standard deviation for individual, discrete and continuous series and its merits and demerits.	1,2,3
22,23,24	Measures of Skewness and Kurtosis: Karl Pearson's coefficient of skewness, Bowley's coefficient of skewness, Kurtosis.	1,2,3
25,26	UNIT:III Basic Probability theory: Definitions, Types of events, Simple problems.	1,2,3
27,28,29	Addition theorem of probability – Problems based on it. Multiplication theorem of probability – problems based on it.	1,2,3
	CYCLE TEST-1	1,2,3
30,31,32	Binomial distribution – Calculation of expected frequency, Fitting a distribution – Calculation of mean, variance - Simple Problems.	1,2,3
33,34,35	Poisson distribution – Calculation of expected frequency -Fitting a distribution – Calculation of mean, variance - Simple Problems.	1,2,3
36,37,38	Normal distribution – Calculation of expected frequency- Fitting a distribution – Calculation of mean, variance - Simple Problems.	1,2,3
39,40	UNIT:IV Correlation – Definition – Types of correlation.	1,2,3
41,42,43	Karl Pearson's coefficient of correlation calculation and its properties.	1,2,3
44,45,46	Spearman's Rank correlation coefficient calculation for non-repeated	1,2,3

	rank.	
47,48	Spearman's Rank correlation coefficient for repeated ranks and its properties.	1,2,3
49,50,51	Regression – Definition – Regression coefficients - Fitting of Simple regression lines by the method of least square.	1,2,3
	CYCLE TEST -2	1,2,3
52,53,54	UNIT-V Basic sampling methods: Simple Random Sampling- Methods of Sampling distribution.	1,2,3
55,56	Chi-Square test for one way table – Problems based on it.	1,2,3
57,58,59	Chi-Square test for contingency table – Problems based on it. Properties and its uses.	1,2,3
60,61,62	Student's t-distribution : Testing hypothesis for specified mean.	1,2,3
63,64,65	Student's t-distribution : Testing hypothesis for two samples. Properties and its uses.	1,2,3
66-75	REVISION	

Reference Books:

1. S.P.Gupta(2008):Statistical Methods, Sultan Chand & Sons, Delhi.
2. S.C.Gupta and V.K.Kapoor(2003):Applied Statistics, Sultan Chand & Sons, Delhi.
- 3.B.L.Agarwal(1996):Programmed Statistics, New Age Internationasl(P) Ltd., New Delhi.