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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
MBA I Year I Semester (R16) Regular Examinations January 2017
STATISTICS FOR MANAGEMENT
 (For Students admitted in 2016 only)

Time: 3 hours

Max. Marks: 60

SECTION – A

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

- Q.1** a. What are the major limitations of Statistics? Explain with suitable examples. 5M
 b. Distinguish between descriptive Statistics and inferential Statistics 5M

OR

- Q.2** a. Explain the nature and characteristics of statistics. 5M
 b. Explain the origin and development of statistics. 5M

UNIT-II

- Q.3** Calculate the mean, median and mode from the following data: 10M

Class	10-19	20-29	30-39	40-49	50-59	60-69	70-79
Frequency	2	4	9	11	12	6	4

OR

- Q.4** a. Discuss the uses of standard deviation. 4M
 b. Calculate Standard Deviation from the following data 6M

Marks	0-9	10-19	20-29	30-39	40-49	50-59
No. of students	10	18	27	32	24	09

UNIT-III

- Q.5** Discuss the relationship between univariate, bivariate and multivariate analysis. 10M

OR

- Q.6** Draw less than and more than Ogives from the data given below? 10M

Profit (in lakhs)	No. of Companies
10-20	6
20-30	8
30-40	12
40-50	18
50-60	25
60-70	16
70-80	8
80-90	5
90-100	2

UNIT-IV

- Q.7** a. Define correlation. Discuss the types of correlation. 3M
 b. The data on price and quantity purchased relating to a commodity for 5 months is given below:

Month	January	February	March	April	May
Price (Rs)	10	10	11	12	12
Qunatity (Kg)	5	6	4	3	3

Find the Pearsonian correlation coefficient between prices and quantity and comment on its sign and magnitude. 7M

OR

- Q.8** a. Ten individuals are chosen from a normal population and their heights (in inches) are given below. Test whether the sample comes from a normal population whose mean height is 66 inches or not at 5% level of significance? Use Single sample t-test.
 63, 63, 66, 67, 68, 69, 70, 70, 71, 71. 5M
 b. A random sample of 64 sales invoices was taken from a large population of sales invoices. The average value was found to be Rs.2000 with a standard deviation of Rs.540. Find a 90 per cent confidence interval for the true mean value of all the sales. 5M

UNIT-V

- Q.9** The following table shows the number of motor registrations in a certain territory for a term of 5 years and the sale of motor tyres by a firm in that territory for the same period.

Year	1	2	3	4	5
Motor Registrations	600	630	720	750	800
No. of tyres sold	1250	1100	1300	1350	1500

Find the regression equation to estimate the sale of tyres when the motor registration is known. Estimate sale of tyres when registration is 850. 10M

OR

- Q.10** a. Describe the construction of index number using relatives and aggregates. 5M
 b. Discuss the models of time series with suitable examples. 5M

SECTION – B

(Compulsory Question)

1 x 10 =10 Marks

- Q.11** Case study:
 Carry out ANOVA two-way classification to the following data

	Blocks			
Treatment1	13	7	9	3
Treatment2	6	6	3	1
Treatment3	11	5	15	5

***** END *****