

Reg. No:

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR  
(AUTONOMOUS)**

**MBA I Year I Semester Regular Examinations January 2020**

**BUSINESS STATISTICS FOR MANAGERS**

Time: **3 hours**

Max. Marks: **60**

**SECTION – A**

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

**UNIT-I**

1 Define statistics. Explain the significance of statistics in Business. **10M**

**OR**

2 a. Explain functions and scope of the statistics. **5M**

b. Explain the relation of statistics with other disciplines. **5M**

**UNIT-II**

3 What is Measures of Central Tendency? Explain the types of central tendency with its merits and demerits. **10M**

**OR**

4 Calculate Mean, Median and Mode from the following data **10M**

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of students	10	18	27	32	24	09

**UNIT-III**

5 a. Explain the following terms **5M**

i) Primary data ii) Secondary data.

b. Explain different types of Graphs in data representation with examples. **5M**

**OR**

6 a. The following are the figures of sales of two firms A&B for the years 2003 to 2010. **5M**

10M present the data graphically?

Year	Sales Firm A ('000 units)	Sales Firm B ('000 units)
2003	200	2000
2004	300	3000
2005	400	4000
2006	500	5000
2007	600	6000
2008	700	7000
2009	800	8000
2010	900	9000

b. How Data can be classified and tabulated? Explain. **5M**

**UNIT-IV**

- 7 a. Explain the differences between Correlation and Regression. **5M**  
 b. Define correlation? Explain different types of correlation. **5M**

**OR**

- 8 Calculate correlation coefficient from the following data and interpret the result. **10M**

Marks in Statistics(X)	20	35	15	40	10	35	30	25	45	30
Marks in Accounts(Y)	25	30	20	35	20	25	25	35	35	30

**UNIT-V**

- 9 Carry out ANOVA two-way classification to the following data. **10M**

	Blocks			
Treatment 1	13	7	9	3
Treatment 2	6	6	3	1
Treatment 3	11	5	15	5

**OR**

- 10 Two random samples were drawn from two normal populations and their values are **10M**

A	66	67	75	76	82	84	88	90	92		
B	64	66	74	78	82	85	87	92	93	95	97

Test whether two populations have the same variance at 5% level of significance.

**SECTION – B**  
(Compulsory Question)

**1 x 10 = 10 Marks**

11. Genetic theory states that children having one parent of blood type A and the other of blood type B will always be of one of three types, A, AB, B and that the proportion of three types will on an average be as 1 : 2 : 1. A report states that out of 300 children having one A parent and B parent, 30 per cent were found to be types A, 45 per cent per cent type AB and remainder type B. Test the hypothesis by  $\chi^2$  test.

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