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

**MBA I Year I Semester Supplementary Examinations Feb-2021  
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. Discuss the applications of statistics in business decision making. 10M

**OR**

- 2 Explain the relation of statistics with other disciplines. 10M

**UNIT-II**

- 3 Following distribution gives the pattern of overtime work done by 100 employees of a company. Calculate median. 10M

Overtime Hours	0-10	10-20	20-30	30-40	40-50	50-60
Number of Employees	11	20	35	20	8	6

**OR**

- 4 What do you mean by dispersion? What are the different measures of dispersion? 10M

**UNIT-III**

- 5 What are the guiding considerations in the construction of questionnaire? Explain. 10M

**OR**

- 6 The following are the figures of sales of two firms A&B for the years 2015 to 2020. Present the data graphically. 10M

Year	Sales Firm A (in Crores)	Sales Firm B (in Crores)
2015	100	150
2016	150	200
2017	200	200
2018	350	300
2019	400	250
2020	500	400

**UNIT-IV**

- 7 a What is the Meaning of regression analysis? 5M  
b Explain utilities of regression. 5M

**OR**

- 8 Calculate Spearman's rank correlation coefficient for the following data. 10M

Rank of X	1	4	6	7	8	5	2	3
Rank of Y	2	4	5	3	7	8	6	1

**UNIT-V**

- 9 a Distinguish between Null hypothesis and alternative hypothesis. 5M  
b Explain Type I error and Type II error. 5M

OR

- 10 Set up an analysis of variance table for the following per acre production data for three varieties of wheat, each grown on 4 plots and state if the variety differences are significant. 10M

Plot of land	Per acre production data		
	Variety of wheat A	Variety of wheat B	Variety of wheat C
1	6	5	5
2	7	5	4
3	3	3	3
4	8	7	4

**SECTION – B**  
(Compulsory Question)

- 11 1 x 10 = 10 Marks  
Calculate Standard Deviation and coefficient of SD from the following data and interpret the result.

Score in ODI	25	30	40	35	20	5	15	55	60	40
Score in T20	15	20	25	20	20	30	40	25	10	20

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