Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
MBA I Year I Semester Regular & Supplementary Examinations May-2022
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 scope of Statistics. What are the basic functions of Statistics?	L2	10M

OR

2	a	Explain origin, development and significance of Statistics.	L1	5M
	b	How computers can be useful for statistical analysis? Explain with examples	L2	5M

UNIT-II

3	a	Write about the introduction of measures of central tendency.	L1	5M
	b	Calculate Mean and Mode from the following data	L5	5M

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of students	12	18	25	32	26	11

OR

4	Find the Quartile Deviation for the data given below:	L5	10M

X	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Y	7	10	16	21	9	11	5

UNIT-III

5	a	Explain about primary data and secondary data.	L2	5M
	b	Give a brief explanation about tabulation of data	L3	5M

OR

6	a	The following are the figures of sales of two firms A&B for the years 2015 to 2019. Present the data graphically.	L5	5M

Year	Sales Firm A ('ooo units)	Sales Firm B ('ooo units)
2015	255	376
2016	276	407
2017	302	397
2018	312	333
2019	299	356

	b	How can you represent data by one dimensional diagram?	L3	5M

UNIT-IV

7	a	What is the meaning of regression analysis? Explain its utilities.	L2	5M
	b	Define correlation. what is the importance of correlation	L2	5M

OR

| 8 | Calculate correlation coefficient from the following data and interpret the result. | L4 | 10M |

| Marks in Statistics (X) 20 35 15 40 26 35 30 25 45 32 |
| Marks in Accounts(Y) 25 30 20 35 20 25 25 35 35 40 |

UNIT-V

| 9 | A sample of 450 individuals is found to have a mean height of 77.47 inches. Is it reasonable to regard the sample drawn from the large population with mean height 66.19 inches and standard deviation of 1.5 inches. Test at 1% level of significance. | L4 | 10M |

OR

10 In a large manufacturing factory, a survey was conducted regarding three types of bonus schemes. Total employees were divided into four categories namely laborers, clerks, technicians and executives. The results obtained by way of opinion survey are presented in the form of contingency table as given below. Test the goodness of fit at 5% level of significance.   L4   10M

Employees Category	BONUS SCHEMES		
	Type 1	Type 2	Type 3
Labour	189	256	217
Clerks	78	55	57
Technologies	35	99	77
Executives	7	19	11

SECTION – B

(Compulsory Question)

11   **1 x 10 = 10** Marks

The life time of electric bulbs for a random sample of 10 from a large consignment gave the following data;

Item	1	2	3	4	5	6	7	8	9	10
Life in '000 hours	4.2	4.9	3.7	4.5	6.6	3.9	4.02	5.05	4.89	6.75

Can we accept the hypothesis that the average life time of bulbs is 4000 hours?

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