Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA (Integrated) – SEMESTER – 2 • EXAMINATION – WINTER - 2018

Subject Code: 2527102 Date:26/12/2018

Subject Name : Business Statistics

Time: 02.30 pm – 05.30 pm Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1 **(a)** Explain different types of Graphs and Charts. **07**

(b) Find : Mean ,Median, Mode, Standard Deviation, Variance , Coefficient of variation **07**

Class	1-3	3-5	5-7	7-9	9-11	11-13
Frequency	4	12	13	19	7	5

Q.2 **(a)** Find : Range, Coefficient of Range, 40^{th} Percentile , Q2 , Inter Quartile Range , Coefficient of QD. **07**

18 20 22 27 21 29 27 29 28 29 16

(b) Calculate missing frequencies if Median and Mode are 33.5 and 34 respectively. **07**

C.I.	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 - 60	60 – 70	Total
Fre	4	16	-	-	-	6	4	230

OR

(b) Explain level of Data Measurement. **07**

Q.3 **(a)** Two Batsmen X and Y made the following score. Whom will you select for future ? **07**

X: 14 13 26 53 17 29 79 36 84 49

Y: 37 22 56 52 28 30 37 48 20 40

(b) Explain Important and limitation of Statistics. **07**

OR

Q.3 **(a)** Explain Kurtosis and Skewness in detail **07**

(b) Find : ${}_8P_3$, ${}_8C_5$, ${}_{11}C_3$ **07**

Q.4 **(a)** Write a short note on Spearmen Rank Correlation. **07**

(b) Determine the equation of the Regression line. **07**

X	23	29	29	35	42	46	50	54	64	66	76	78
Y	69	95	102	118	126	125	138	178	156	184	176	225

OR

Q.4 **(a)** Write a short note on Regression Analysis. **07**

(b) Calculate Karl Pearson's co-efficient of correlation. **07**

X	21	22	23	24	25	26	27	28	29
Y	20	19	19	17	17	16	16	15	14

Q.5 **(a)** Explain Baye's theorem. **07**

(b) A pot contain 6 red marbles and 4 black marbles. Two marbles are drawn without replacement from the pot. What is the probability that both of the marbles are black ? **07**

OR

Q.5 **(a)** A certain firm has Plants A ,B and C producing 35% , 25% and 40% respectively of total output. The Probability of Non-Defective product from plants are 0.70 , 0.90 and 0.80 respectively. The products from these plants are mixed together and dispatched to customers. A defective product was found ,what is the Probability that it comes from Plant A , Plant B and Plant C ? **07**

(b) Explain Structure of Probability. **07**

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