

**GUJARAT TECHNOLOGICAL UNIVERSITY****MBA(INTEGRATED) - SEMESTER-II EXAMINATION – WINTER 2020****Subject Code:2527102****Date:05/02/2021****Subject Name:Business Statistics****Time:02:00 PM to 4:00 PM****Total Marks:47****Instructions:**

1. Attempt any **THREE** questions from Q1 to Q6.
2. Q7 is compulsory.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.

**Q.1 (a)** Explain level of Data Measurement. **07****(b)** Find : Mean , Standard Deviation, Variance , Coefficient of variation **07**

Class	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Frequency	6	22	35	29	16	8	4	2

**Q.2 (a)** Find : 35<sup>th</sup> Percentile, 55<sup>th</sup> Percentile , Q1 , Q2 ,Q3. **07**

16 28 29 13 17 20 11 34 32 27 25 30 19 18 33

**(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

**Q.3 (a)** Find the Range , Mean , Median and Mode of the data. **07**

21 21 21 22 23 25 28 29 33 35 38 56 61

**(b)** Explain Important and limitation of Statistics. **07****Q.4 (a)** Explain Kurtosis and Skewness in detail **07****(b)** Write a short note on Regression Analysis. **07****Q.5 (a)** Explain Permutation and Combination with suitable example. **07****(b)** Determine the equation of the Regression line. **07**

X	140	119	103	91	65	29	24
Y	25	29	46	70	88	112	128

**Q.6 (a)** Write a short note on Spearman Rank Correlation. **07****(b)** Calculate Karl Pearson's co-efficient of correlation. **07**

X	4	6	7	11	14	17	21
Y	18	12	13	8	7	7	4

**Q.7 (a)** Explain Pie Chart with suitable example. **05****OR**

**Q.7 (a)** A certain firm has Plants A ,B and C producing 15% , 45% and 40% respectively of total output. The Probability of Defective product from plants are 0.05 , 0.10 and 0.06 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 ? **05**

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