GUJARAT TECHNOLOGICAL UNIVERSITY
B.VOC- SEMESTER–II EXAMINATION – SUMMER 2025

Subject Code:1122201   **Date:21-05-2025**
Subject Name: Business Statistics
Time:10:30 AM TO 12:30 PM   **Total Marks:50**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Discuss the importance and limitations of Statistics.	**05**
	(b)	Find Q1, Q3, D8 & P65 for the following data. 9,23,20,18,22,12,11,15,2	**05**
Q.2	**(a)**	Write a note on types of variables.	**05**
	(b)	Find mean, median and mode for the following data. 20,14,20,27,20,8,9,16,8,11,9	**05**

OR

	(b)	Draw Frequency Polygon for the following frequency distribution.	**05**

Class	0-5	5-10	10-15	15-20	20-25	25-30	30-35
Fi	6	11	18	23	17	12	9

Q.3	**(a)**	What is average? Give it's uses and characteristics.	**05**
	(b)	Find standard deviation, variance and CV for the data : 6, 15, 16, 7, 17, 23, 10, 22.	**05**

OR

Q.3	**(a)**	Discuss range, quartile deviation, standard deviation.	**05**
	(b)	Calculate mean, median and mode for the following frequency distribution.	**05**

Class	10-15	15-20	20-25	25-30	30-35	35-40
Fi	6	11	17	10	8	3

Q.4	**(a)**	Define correlation coefficient and write down its properties.	**05**
	(b)	Find Spearman's rank correlation coefficient.	**05**

X	6	7	15	16	11	14	9
Y	9	10	18	17	12	20	8

OR

Q.4	**(a)**	Write a note on Scatter diagram method.	**05**
	(b)	Find equation of regression line for the data given below.	**05**

X	22	18	20	10	15	14
Y	20	15	16	14	18	18

Q.5	**(a)**	Discuss Stratified random sampling method in detail.	**05**
	(b)	Find trends by 3 yearly moving averages.	**05**

Year	2008	2010	2012	2014	2016	2018	2020	2022
Sales	34	25	27	40	45	54	50	47

OR

Q.5	**(a)**	Write a short note on components of time series.	**05**
	(b)	What is sampling? Discuss its advantages.	**05**

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