

GUJARAT TECHNOLOGICAL UNIVERSITY**B.VOC- SEMESTER-II EXAMINATION – WINTER 2025****Subject Code:1122201****Date:27-11-2025****Subject Name: Business Statistics****Time:02:30 PM to 04:30 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.

Q.1 (a) Calculate mean, median and mode for the following data. **05**

12,9,20,25,22,18,10,16,15,11,18

(b) What is average? Give its uses and characteristics. **05****Q.2 (a)** Define Statistics. Give its uses in different fields. **05****(b)** Find Q3, D4 & P65 for the following data. **05**

10,18,22,16,15,16,18,20,16,18,23

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

Class	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Fi	6	14	25	32	18	11	9

Q.3 (a) Explain different charts and graphs used in Statistics. **05****(b)** Using the following information compare dispersion of two groups by CV. **05**

Group	Number	Mean	s.d.
A	20	14.6	2.4
B	30	15.2	3

OR**Q.3 (a)** Discuss important measures of central tendency. **05****(b)** Calculate mean, median and mode for the following frequency distribution. **05**

Class	0-5	5-10	10-15	15-20	20-25	25-30
Fi	3	9	14	11	7	5

Q.4 (a) Explain Spearman's rank correlation method with suitable example. **05****(b)** Find equation of regression line for the data given below. **05**

X	1	5	3	2	1	2	7	3
Y	6	1	0	0	1	2	1	5

OR**Q.4 (a)** What is correlation? Discuss the main types of correlation. **05****(b)** Find Karl Pearson's co-efficient of correlation. **05**

X	2.0	4.0	1.2	0.4	2.4
Y	5.4	0.9	6.3	1.8	3.6

Q.5 (a) Write a note on Stratified random sampling method. **05****(b)** What is sampling? Discuss the characteristics of an ideal sample. **05****OR****Q.5 (a)** Write a note on components of time series. **05****(b)** Find trends by 5 yearly moving averages. **05**

Year	2010	2012	2014	2016	2018	2020	2022	2024
Y	18	14	23	11	16	26	9	12
