



Date:

Registration number:

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU-27
B.Sc. STATISTICS – IV SEMESTER (OPEN ELECTIVE)
SEMESTER EXAMINATION: APRIL 2022
(Examination conducted in July 2022)

STOE – 4116: DESCRIPTIVE STATISTICS

Time: 1 ½ Hours

Max: 35 Marks

This question paper contains ONE printed page and Three parts

Note: Scientific calculators are allowed.

Graphs will be provided on request

PART A

I Answer any FIVE from the following **2 x 5 = 10**

1. Define Statistics. Mention two applications of it in the field of Economics and Commerce.
2. Define qualitative and quantitative data with an example for each.
3. Differentiate between nominal and ordinal scale with an example for each.
4. Define simple and impossible event with an example for each.
5. Define mode. Give its merits and demerits.
6. Define quartile deviation. Write down its formula for tabulated data.
7. Define Pilot surveys with an example.

PART B

II Answer any THREE from the following **5 x 3 = 15**

8. Distinguish between census survey and sample survey. Discuss the merits and demerits of it.
9. Define random experiment. State the addition and multiplication theorem of probability for any two events with proper notations.
10. For the following data, draw the Histogram and hence find Mode.

Weekly Wages (in Rs.)	10-15	15-20	20-25	25-30	30-40	40-60	60-80
No. of Workers.	7	19	27	15	12	12	8

11. A) Define geometric mean. Give its applications. (2)
B) Define Dispersion. List out the absolute and relative measure of dispersion. (3)
12. Twelve students obtained the following marks in Statistics & Accountancy.

Students	A	B	C	D	E	F	G	H	I	J	K	L
Statistics	60	34	40	50	45	41	22	43	42	66	64	46
Accountancy	75	32	35	40	45	33	12	30	36	72	41	57

Find the Coefficient of Rank correlation.

PART C

III Answer any ONE from the following **10 x 1 = 10**

13. A) The following is the distribution of percentage alcohol content in 60 bottles of a particular medicine. Calculate the Median. (5)

Percentage	7.0–7.1	7.1 – 7.2	7.2 – 7.3	7.3 – 7.4	7.4 -7.5	7.5 – 7.6
No. of Bottles	5	13	18	14	7	3

- B) Define Correlation. With the help of a neat scatter diagram explain the different types of correlation. (5)

14. A) The following data relates to the age of husbands and their wives.

	Age of Husbands	Age of Wives
Mean	27 years	23 years
S. D	3 years	2 years
Coefficient of Correlation	r = 0.93	

Estimate the age of a lady whose husband is aged 23yrs. (5)

- B) Write a short note on i) Simple random sampling ii) Systematic sampling. (5)
