

BA/BSC/B.COM DEGREE END SEMESTER EXAMINATION - NOVEMBER 2024**UGP (HONS.) SEMESTER - 1: DISCIPLINE SPECIFIC COURSE (COMMERCE)****COURSE: 24UCOMDSC102: QUANTITATIVE TECHNIQUES FOR BUSINESS***(For Regular 2024 Admission)*

Time : 1.5 Hours

Max. Marks : 50

PART – A**Answer any 5 questions. Each question carries 2 marks**

1. What do you mean by questionnaire?
2. What is Judgemental sampling?
3. What are inductive Statistics?
4. State any two uses of Mode.
5. What are scatter diagrams?
6. State the utilities of Regression Line?
7. What is research methodology?
8. What are popular reports?

(2 × 5 = 10)**PART – B****Answer any 4 questions. Each question carries 5 marks**

9. Explain the sources for collecting secondary data.
10. What is editing of data? What are the factors to be considered while editing data?
11. The following are the targets attained by employees in a factory.

Targets in Crores (Less Than)	No. of workers
10	8
20	20
30	40
40	72
50	102
60	130
70	142
80	146

The Managers of the company decides to give bonus to those employees whose performance came within the top 15%. Therefore, the manager has asked you to suggest the cutoff target for declaring the awards. You are required to calculate the same.

12. A man travels 600kms by train at an average speed of 60km/hr, 300kms per hour at an average speed of 15km per hour, 700 kms by plane at 350 km per hour and 25 kms by taxicab at 50km per hour. Find the average speed of the whole journey.
13. A computer, while calculating the coefficient of correlation between two variables X and Y from 30 pairs of observations, obtained the following results:
 $N=30$, $\sum X= 120$, $\sum Y= 90$, $\sum X^2= 600$, $\sum Y^2= 250$, $\sum XY= 356$
 It was later on discovered that 2 pairs of X&Y there miss copied as (6, 14) and (8, 6) instead of (8, 12) and (6, 8). Find the correct coefficient of correlation.
14. From the following data of rainfall and production of rice, find the most likely production corresponding to the rainfall 40cms

	Rainfall (cm)	Production (Tonnes)
Arithmetic Mean	35	50
Standard Deviation	5	8

Coefficient of correlation = 0.75

(5 × 4 = 20 Marks)

PART – C

Answer any 2 questions. Each question carries 10 marks

15. Explain the different types of research design.
16. From the prices of shares of Company A and Company B given below, state which is more stable in value? And state which is more speculative?

Year	Aadhithya Ltd	Fardheen Ltd
2015	55	108
2016	54	107
2017	52	105
2018	53	105
2019	56	106
2020	58	107
2021	52	104

2022	50	103
2023	51	104
2024	49	101

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17. The following data shows the years of experience and the corresponding monthly salary (in thousands) of ten employees in a company:

Experience (Years)	5	10	3	12	7	8	15	20	11	9
Salary (Thousands)	30	55	25	60	40	45	70	85	58	50

- Determine the two regression equations: one predicting salary based on experience and the other predicting experience based on salary.
- Estimate the monthly salary of an employee with 6 years of experience.
- Determine the years of experience when the monthly salary is 65 thousand.
- Calculate the correlation coefficient between experience and salary.

(10 x 2 = 20)