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BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.) (071)4
EXAMINATION: MAY – 2025
SEMESTER - IV

Sub.: Statistical & Quantitative Methods / Statistics and Quantitative Methods
(BBA22-412/BBA23-412)

Total Marks : 60

Time: 2.00 pm to 4.30pm

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q. 1. Choose the most appropriate option. (05)

1. A continuous rectangles and two dimensional graph is called
a) Pie chart
b) Histogram
c) Frequency polygon
d) Ogive curves
2. Event B is drawing ace from a pack of card then total sample space $n(s)=\dots\dots\dots$
a) 52
b) 13
c) 26
d) 4
3. Karl Pearson's coefficient of skewness lies between _____ and +1 .
a) -1
b) 0
c) 1
d) -2
4. Mean = Mode = Median is Normal Distribution .
a) Normal
b) Poisson
c) Exponential
d) Trigonometric
5. If Ranks are not given then We have to assign the to calculate Rank correlation .
a) Ranks
b) Probability
c) test
d) Value

Q. 2. State True / False (05)

- Two variable data is Univariate distributed data
a) True b) False
- The positions at which the data is split into equal halves are known as partition values.
True b) False
- A fair dice is tossed twice. Then $n(s) = 36$.
a) True b) False
- (1, 6), (2, 9), (3, 16) given data is positively correlated .
a) True b) False
- Mean – Mode = 3 (Mean – Median)
a) True b) False

Q. 3. Write Short notes on (Any Three) (15)

1. The Coefficient of Variation
2. Uses of Index Numbers
3. Time series
4. Collection of Data
5. Types of Graphs

Q. 4. Answer in detail (Any Two)**(20)**

1. The Following data give the information about Height of a person and the number of persons checked -

Height of person	No. of persons
150 – 155	5
155 – 160	10
160 – 165	6
165 – 170	8
170 – 175	29
175 – 180	20

Calculate Mean ,Mode & Median

2. Following data is the Number of students admitted for the year .Draw the Bar chart, Subdivided Bar chart and the continuous Bar chart –

Year	MBA-I	MBA-II	BBA-I	Total
2018-19	120	125	105	350
2019-20	90	75	90	225
2020-21	100	90	120	310
2021-22	130	120	150	350

3. Calculate the standard deviation & CV from the following distribution:

Number of orders	10 - 14	15 – 19	20 - 24	25 – 29	30 - 34	35 - 39
Number of weeks	3	17	15	20	9	4

4. A Company manufactures three varieties of soap. Represent the following information showing the quarterly sales (three months) using a multiple-bar diagram. Also draw Subdivided Bar chart with months .

Month	Quarterly Sales (In Units)		
	Soap1	Soap2	Soap 3
April	150	210	315
May	250	350	440
June	320	430	550

Q. 5. Case study**(15)**

The survey was conducted with the Two variables Distance covered in km per liter of petrol and Number of Mopeds and data tabulated as follows to check the variability

Distance	40–45	45–50	50–55	55–60	60–65
No .of Moped	13	12	25	35	50

Questions: -

1. Estimate Mean.
2. Calculate Variance
3. Find SD.