



## **BRAINWARE UNIVERSITY**

## Term End Examination 2024-2025 Programme – MBA-2024

Course Name - Business Statistics and Analytics for Decision-Making

Course Code - MBA10106

(Semester I)

Library
Brainware University
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Full Marks : 60 Time : 2:30 Hours
[The figure in the margin indicates full marks. Candidates are required to give their answers in their

own words as far as practicable.]

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**Group-A** (Multiple Choice Type Question)

1 x 15=15

- 1. Choose the correct alternative from the following:
  - (i) Select the correct option. Subset of selected population is called
    - a) descriptive portion

b) elementary portion

c) inferential portion

- d) sample
- (ii) The following data show the number of hours worked by 200 statistics students.

Number of

Hours	Students
0 - 9	40
10 - 19	50
20 - 29	70

Predict the relative frequency of students working 9 hours or less.

a) 40

b) 50

c) 90

- d) 70
- (iii) Select the correct option. Questionnaire survey method is used to collect
  - a) Secondary data

b) Qualitative variable

c) Primary data

- d) None of these
- (iv) Select the correct option. The weights of students in a college/ school is a
  - a) Discrete Variable

b) Continuous variable

		Mone of these	
(v)	Choose the correct option. In a throw of dice, than 5 is:	he probability of getting number greater	r
	a) 1/6 c) 0	b) 1/3 d) 1	
(vi)	Choose the correct option. Three unbiased coin at least 2 tails is:		
	a) 1/3	b) 1/6	
(vii)	c) 1/2 You asked five of your classmates about their he you stated that the average height of all studen inches. Then examine This is an example of:		
	a) Descriptive statistics c) Parameter	<ul><li>b) Inferential Statistics</li><li>d)</li><li>Population</li></ul>	
(viii)	Choose the correct option. A card is drawn from probability of getting a queen of club or a king of		
	a) 1/26 c) 3/52 Identify the correct statement. The total relative	b) 1/52 d) none of these frequency is always	
	a) One c) Two Identify the correct option. A Histogram is a set	b) Half d) Three of adjacent	
	a) Squares	ribrary re University st Bengal-700	
	c) Triangles Predict total angles (in degree) in Pie chart.	d) none of these	
	a)  90 c) 270	b) 180 d) 360	
(xii)	Predict the median of the following data: 160, 1	80, 200, 280, 300, 320, 400.	
	a) 140	b) 300	
	c) 180 Select the correct option. The first order raw mo	d) 280 ment is equal to	
	a) 0	b) 1	
	c) 2	d) None of these	
(xiv)	Select the correct option. The variance of a co	onstant is	
	,	b) 0	
(xv)	<ul> <li>Negetive</li> <li>Choose the correct option. Is standard deviation</li> <li>(HM)?</li> </ul>	d) None of these calculated from the Harmonic Mean	
	,	<ul><li>b) Sometimes</li><li>d) None of these</li></ul>	
	Group	R	
	(Short Answer Tyr		3 x 5=15

c) Qualitative variable

(Short Answer Type Questions)

2. Define primary and secondary data.

- (3)
- 3. An urn contains 8 white and 3 red balls. If 2 balls are drawn at random, Evaluate the probability that (i) both are white, (ii) both are red, (iii) one of each colour.
  - (3)
- 4. In a single cast with two dice show that the chance of throwing a total of 7 of 1/6.
- 5. Compute the coefficient of correlation of the following data:

(3)

Y 1				
A 1	2	3	4	5
У 6	8	11	8	12

6. Represent the sales (monthly) of Maruti cars for 1990 of park Motor Co. in India in a line diagram from given data: (3)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No car	175	185	160	110	120	80	85	88	120	110	155	170
sold												

## OR

Draw a Simple Bar chart diagram to represent year wise (5 yearly) students

(3)

input (in thousands) in a large Indian University.

Year	1960	1965	1970	1975	1980	1985	1990
No. of	20	27.5	23.5	30.0	16.5	25	35
student							



## **Group-C** (Long Answer Type Questions)

5 x 6=30

- 7. Define class limits, class boundaries, class mark, class width, percentage frequency, relative frequency and frequency density. (5)
- 8. Explain the requisites of a good average.

(5)

9. Evaluate the arithmetic mean and median of the frequency distribution on monthly wages (5) of 100 workers.

Wages	260-	270-	280-	290-	300-	310-	320-
	269	279	289	299	309	319	329
No of workers	6	14	29	23	16	10	2

10. Evaluate the standard deviation and coefficient of variance.

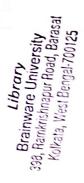
Height	125-	135-	140-	155-	165-	175-
	135	140	155	165	175	185
No. of students	2	7	24	27	13	3

11. Identify the linear regression equation of Y on X for the data.

Χ	1	2	3	4	5
Υ	3	2	5	4	4

12. Illustrate a pie chart diagram to represent the following data relation to cost of manufacture: (5)

Item	Cost in Rs.
Cost of Materials	38400
Cost of Labour	30720
Direct expenses	11520
Factory Overhead	15360



(5)

(5)

OR

Illustrate a compound bar chart diagram of the production of paddy crops (in Lakh tons) for three different states A, B, C for the years 1947, 1957, 1967 from the following information.

Production of Paddy in lakh tons						
States 1947 1957 1967						
Α	28	40	38			
В	50	53	55			
С	38	30	53			