17467

BRAINWARE UNIVERSITY

Term End Examination 2024-2025
Programme – BBA(DM)-Hons-2023/BBA(DM)-Hons-2024
Course Name – Statistics for Analysis
Course Code - BBD20001
(Semester II)

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.]

Group-A

(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Identify the example of quantitative data from the following options.

a) The color of a car
b) The taste of a pizza
c) The height of a person
d) The brand of a phone

(ii) Choose the example of qualitative data from the list below.

a) The temperature of a room
b) The weight of a dog
c) The favorite color of a person
d) The age of a tree

(iii) Determine from the following that is a qualitative attribute.

a) Age
b) Height
c) Color
d) Weight

(iv) In a dataset about students in an Indian school, three of the following options represent attributes, while one represents a variable. Identify the variable from the options below:

a) John Doe
b) Grade 9
c) 15 years old
d) Age

(v) Identify the scale of measurement used when measuring temperature in degrees Celsius.

a) Ordinal
b) Interval
c) Ratio
d) Nominal

(vi) Determine the measure of central tendency that is most affected by outliers.

a) Mean
b) Median
c) Mode
d) No option fits

(vii) Choose the mode of the following dataset: 1, 2, 3, 3, 4, 5, 5, 5, 6.

a) 3
b) 5

c) 3 and 5
d) There is no mode.

(viii) Identify the mode of the following dataset: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
a) 1
b) 5
c) 9
d) There is no mode.

(ix) Determine the measure of dispersion that is the simplest to calculate.
a) Range
b) Quartile Deviation
c) Mean Deviation
d) Standard Deviation

(x) Which graph has bars that touch each other?
a) Bar graph.
b) Pie chart.
c) Line graph.
d) Histogram.

(xi) What is the graph called that shows points for pairs of values (X, Y)?
a) Scatter diagram
b) Histogram
c) Ogive
d) Pie diagram

(xii) What is the mode of this dataset? 2, 3, 3, 5, 7, 8, 3, 9
a) 2
b) 3
c) 5
d) 9

(xiii) If the numbers in a dataset are 1, 2, 3, 4, 5, what is the mean?
a) 2
b) 3
c) 4
d) 5

(xiv) A bag contains 5 red balls and 3 white balls. Then solve the probability of randomly selecting white balls.
a) 5/8
b) 3/8
c) 3/13
d) 3/5

(xv) Calculate probability of drawing an Ace from a standard deck of 52 cards?
a) 1/13
b) 1/52
c) 1/4
d) 1/12

Group-B

(Short Answer Type Questions) 3 x 5=15

2. Predict Mean if median and mode are 20 and 10 respectively. (3)
3. Given the following frequency distribution table, find the median class: (3)

Cost of Living Index	No. of Weeks
1400-1550	8
1550-1700	15
1700-1850	21
1850-2000	8

4. Construct a Simple Bar chart diagram to represent year wise (5 yearly) students input (in thousands) in a large Indian University. (3)

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

5. Calculate the coefficient of range for the following series: 32, 68, 25, 76, 15, 9. (3)
6. Calculate the probability of getting all heads If three coins are tossed simultaneously. (3)

OR

Calculate the probability of getting a multiple of 3 in a single throw of a die (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Explain the utilities of regression analysis. (5)
8. Differentiate between correlation and regression. (5)
9. Write down the characteristics of exponetial distribution. (5)
10. Calculate the **mean salary** of the workers based on the following data: (5)

Salary (in Rs.)	Number of Workers
3000	16
4000	12
5000	10
6000	8
7000	6
8000	4
9000	3
10000	1
Total	**60**

11. The following frequency table is given below: (5)

Class	1-2	2-3	3-4	4-5	5-6	6-7
Frequency	17	14	2	10	15	10

Predict the mode of the frequency distribution.

12. The three ships, A, B, and C, sail from India to Africa. If the probability of ship A reaching safely is 2/7, ship B reaching safely is 3/10, and ship C reaching safely is 6/17, estimate the probability of all of them arriving safely. (5)

OR

Explain the concept of correlation in statistics. How is it used in business decision-making? Describe different types of correlation with suitable examples. (5)

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