22CBA102

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCom DEGREE EXAMINATION DECEMBER 2022
(First Semester)

Branch – **COMMERCE (BUSINESS ANALYTICS)**

STATISTICS FOR BUSINESS ANALYTICS

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1. Statistics deals with
   (i) Qualitative data (ii) Quantitative data
   (iii) Both (i) and (ii) (iv) None of (i) and (ii)

2. Profit and loss of a firm during various years can be displayed through
   (i) Simple bar diagram (ii) Multiple bar diagram
   (iii) Deviation bar chart (iv) Pie chart

3. Simple random sampling method is
   (i) Restricted sampling method (ii) Non probability sampling method
   (iii) Unrestricted sampling method (iv) All the above

4. If a grouped data has open end classes, then one cannot calculate
   (i) Arithmetic mean (ii) Median
   (iii) Mode (iv) Quartile deviation

5 For a positive skewed distribution. Which of the following inequality holds?
   (i) Median≥ Mode≥Meen (ii) Mode ≥ Mean≥Median
   (iii) Mean ≥ Median≥Mode (iv) Mean ≥ Mode≥median≥mean

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6. a Describe the sources of secondary data.
   OR
   b Explain the types of tables.

7. a What is diagrams? Gives the rules of construction of diagrams.
   OR
   b Bring out the general rules of construction the graphs.

8. a Describe the simple random sampling method with and without replacement.
   OR
   b State the advantages of systematic sampling method.

9. a Define the following terms (i) Geometric mean, (ii) Harmonic mean
   OR
   b. Find the first and third quartiles for the following series.
   Production(x): 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22.

Cont...

10. a Calculate the range and coefficient of range for the following data:
X: 27, 30, 35, 36, 38, 40, 43.

OR

b Explain the types of skewness.

SECTION -C (30 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11. a Explain the methods of collecting the primary data.

OR

b What is classification? Explain the types.

12. a Draw a pie diagram for the following information:

Men	Women	Girls	Boys ;
2500	2000	4000	1500

OR

b Draw a histogram and frequency polygon for the following data.

Year ;	2011	2012	2013	2014	2015	2016	2017	2018	2019
Sales	46.5	40	42	35	37.5	39	46	50	49

13. a Discuss about the probability sampling methods.

OR

b Briefly explain non probability sampling methods.

14. a From the following data find out the mean profits:

Profit per shop (Rs.)	100-200	200-300	300-400	400-500	500-600	600-700	700-800
Number of shops	10	18	20	26	30	28	18

OR

b Find the mode value from the following distribution:

Class Interval	0-10	10-20	20-30	30-40	40-50
Frequency	4	18	30	43	24

15. a Calculate the mean deviation about mean for the following data:

x	2-4	4-6	6-8	8-10
f	3	4	2	1

OR

b Calculate Karl Peerson's Co-efficient of skewness for the following data:

x	10	20	30	40	50	60
f	8	12	20	10	7	3

Z-Z-Z END