

BBA I Year Examination

BBA-05 Fundamentals of Business Statistics

Time: 3 Hours

Max. Marks: 70

Note: The question paper is divided into three sections A, B & C. Write Answers as per the given instructions.

Section A

(Very Short Answer Type Questions)

Note: Answers all 7 questions. As per the nature of the questions you delimit your answer in one sentence up to 30 words. Each question carries equal marks. (Marks 2x7=14)

1. Nature of Statistics.
2. Statistical Unit.
3. Primary and Secondary Data.
4. Classification and Tabulation.
5. Collection of data.
6. Difference between primary and secondary data.
7. Questionnaire.
8. Characteristics of classification.
9. Importance of Tabulation.
10. Diagrams.
11. Classification of Graphs.
12. What is arithmetic Average or mean?
13. What is Mode?
14. Crude Death Rate.
15. Quartile Deviation.
16. Mean Deviation
17. Skewness.
18. Bowley's Measure.
19. Moments.
20. Kurtosis.
21. Purpose of Index Numbers.
22. Fisher's Ideal Index.
23. Correlation.
24. Definition of Regression.

Section B

(Short Answer Type Questions)

Answer any 4 questions. Each answer should not exceed 200 words. Each question carries 07 marks. (Marks 7x4 = 28)

1. Explain the Classification of Diagrams.
2. What do you mean by dispersion?
3. State the various types of Kurtosis.
4. Define Index number and mention its uses.
5. Addition and multiplication theorems of probability.
6. Differentiate between Interpolation and Extrapolation.
7. Different stages of statistical investigation.
8. Distinguish between seasonal variations and cyclical fluctuations.
9. Various methods of measure 'Association of Attributes'.
10. Frequency Polygon and Histogram.
11. Differentiate between Classification & Tabulation.
12. Precautions should be taken in making use of any published index numbers.
13. Define statistics and explain its scope.
14. Explain the various sources of secondary data.
15. Explain the classification of Diagrams.
16. Distinguish between Crude Death Rate and Standardised Death Rate.
17. What do you mean by Dispersion?
18. Differentiate between fixed base and chain base index methods.
19. Why is Probable Error important?
20. What is Rank Correlation?
21. Distinguish between correlation and regression.
22. What is Time Series?
23. What is Interpolation?
24. Examine the consistency of data when-
(N) = 1000, (A)-600, (B)=50, (AB)=50

Section C

(Long Answer Type Questions)

Answer any 2 questions. Each answer should not exceed 500 words. Each question carries 14 marks. (Marks 2x14=28)

1. State the empirical relationship between Mode, Median and Arithmetic Mean of a frequency distribution.
2. Explain the meaning of Skewness and Comment on the various measures of skewness.
3. "All statistical data are numerical statement of facts, but all numerical statements of facts are not statistical data." Explain this statement, State the characteristics of statistical data.
4. Calculate Mean, Mode and Median from the following data:

Wages (in Rs.)	No. of Person
Less than 20	5
Less than 40	12
20-60	29
60 and above	31
80-100	8
100 and above	19
120 and above	5

5. Find out the coefficient of skewness by quartile measure:

Mid-point	Frequency
15	30
20	28
25	25
30	24
35	20
40	21

6. Calculate the estimated production for the year 2011 from the given information of production by an industry:

Year	Production (in lakhs)
2001	10
2003	15
2005	9
2007	25
2009	30

7. What are the different methods of collecting statistical data? Which of these is most reliable and why?

8. Find out the regression equation by least square method from the following data:

X	1	3	4	6	8	9	11	14
Y	1	2	4	4	5	7	8	9

9. Explain clearly the meaning of time-series analysis. Indicate the importance of such an analysis in business.
10. From the following data, calculate Fisher's Ideal Index

Items	Price per unit (Rs.)		Quantity used	
	2003	2004	2003	2004
A	9.25	15.00	5	5
B	8.00	12.00	10	11
C	4.00	5.00	6	6
D	1.00	1.25	4	8

11. What do you mean by Reasonable Degree of Accuracy?
12. What is questionnaire? What are the chief requirements of a good questionnaire for use in statistical inquiry?
13. What are the main advantages of graphic presentation?
14. State the relationship between Mode, Median and Arithmetic Mean.
15. What do you mean by Mean Deviation? What are its advantages and disadvantages?
16. State and explain Fisher's Ideal Formula for Price Index Number and why is it called Ideal?
17. Write assumptions of Karl Pearson's coefficient of correlation.
18. What is the concept of Standard error of estimate in regression? State its utility.
19. What do you mean by short term oscillations? Explain the terms regular and irregular fluctuations.
20. What do you understand by the term Interpolation and Extrapolation?
21. State the conditions under which langrage's method is used?
22. What do you understand by Association of Attributes? Discuss the methods by which it is measured.
23. Define Probability and explain importance of this concept.
24. Calculate Karl Pearson's based on median from the following data :

Size	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	33	28	25	24	20	21