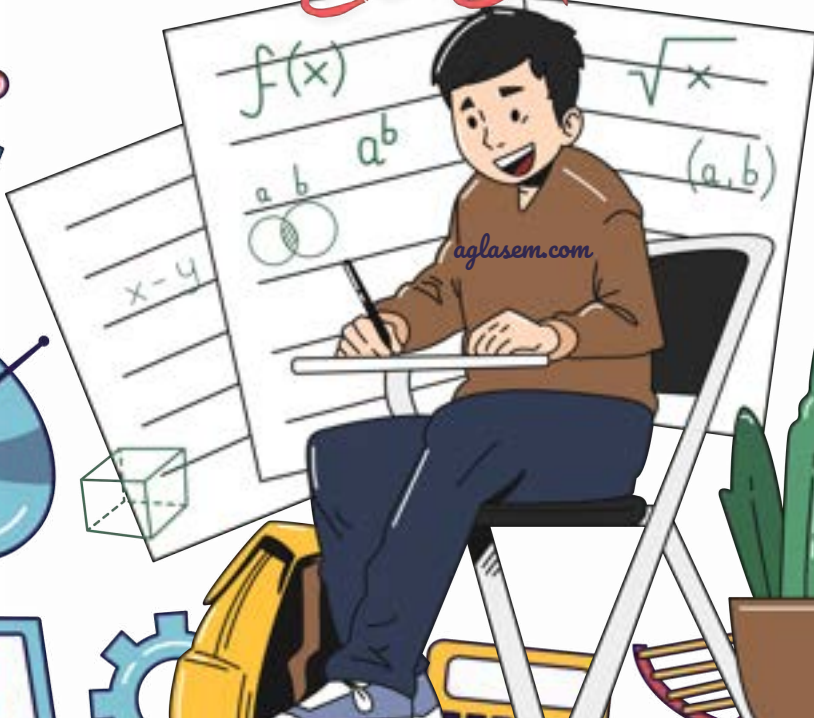




JKBOSE QUESTION PAPERS

Jammu & Kashmir Board of School Education

2024



Roll No.

Z-17-X

Total No. of Questions : 31]

[Total No. of Printed Pages : 7

11thARM(SZ)JKUT2024

1217-X

STATISTICS

Time : 3.00 Hours]

[Maximum Marks : 70

Section-A

(Objective Type Questions)

1 each

1. Which of the following is a method of collecting primary data ?

- (A) Interview method
- (B) Questionnaire and Schedule method
- (C) Both (A) and (B)
- (D) None of these

2. For a given data set : 9, 12, 8, 5, 4, 6, 13, the mean is

3. The empirical relation between mean, median and mode is :

(A) Mode = 3 Median – 2 Mean

(B) Median = 3 Mode – 2 Mean

(C) Mean = 3 Mode – 2 Median

(D) Mode = 3 Mean – 2 Median

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Turn Over

Z-17-X



4. Percentiles are those values that divide any set of a given observations into hundred equal parts. (True/False)
5. For a set of observations 1, 0, 8, 4, 3, 9, 7, the median is
6. The sum of deviations taken from mean is always equal to :
- (A) Zero
- (B) One
- (C) Greater than zero
- (D) Greater than one
7. The variance for a set of observations is :
- (A) $\sqrt{\text{Standard deviation}}$
- (B) $(\text{Standard deviation})^2$
- (C) Both (A) and (B)
- (D) None of these
8. For a symmetrical distribution, the third order central moment is always equal to zero. (True/False)



9. The coefficient of correlation is independent of :
- (A) Change of origin
 - (B) Change of scale
 - (C) The units of measurement of the variables
 - (D) All of these
10. Which of the following is not considered hardware ?
- (A) Operating system
 - (B) Central processing unit
 - (C) Keyboard
 - (D) Hard disk



Section-B

(Very Short Answer Type Questions)

2 each

- 11. Define Quantitative data.
12. Define sub-divided bar chart.
13. What do you mean by frequency polygon ?
- 14. Define mode.

- ✓15. What is meant by partition values ?
16. For the following data set, calculate the coefficient of range :
- 8, 16, 10, 7, 12, 17, 15, 9.
17. State any *two* properties of Correlation Coefficient.
- ✓18. Write down the names of input devices of computer.
- ✓19. What is meant by Software ?

Section-C

(Short Answer Type Questions)

3 each

- ✓20. Write down any *three* limitations of Statistics.
- ✓21. Discuss in brief the importance of Statistics.
- ✓22. Define the following terms :
- (a) Population
- (b) Sample
23. ✓What are the advantages of graphical representation of data ?

Or

Explain briefly the construction of pie diagram.

- ✓24. What do you mean by symmetrical data ? Also write empirical relation between mean, median and mode.



25. State Karl Pearson's Coefficient of Skewness. If the mean, mode and standard deviation of a frequency distribution are 41, 45 and 8 respectively, calculate Karl Pearson's Coefficient of Skewness.

Or

- Define Skewness. State various measures of skewness.
- 26. Define moments. Discuss in brief the raw moments and central moments.
27. What is Bowley's Coefficient of Skewness ? If the first quartile, 2nd quartile and third quartile of distribution are 7.5, 10 and 15 respectively, determine the value of Bowley's Coefficient of Skewness.
- 28. Explain the concept of Linear Programming.

Section-D

(Long Answer Type Questions)

5 each



29. From the following data, calculate the arithmetic mean of the marks obtained by group of students :

Marks	No. of Students
0—10	2
10—20	8
20—30	12
30—40	7
40—50	9

(6)

Or

Explain the characteristics of a good average.

30. From the following data, calculate the standard deviation :

Income ('000)	No. of Employees
0—10	6
10—20	5
20—30	8
30—40	15
40—50	7
50—60	4



Or

- What do you mean by mean deviation ? Write down its various merits.

31. Define Correlation. Explain in brief various types of correlation.

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(7)

Or

Calculate the coefficient of correlation by the product moment method between X and Y for the following data :

X	Y
7	8
3	4
6	5
8	9
5	5
3	6
1	3



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