GL BAJAJ
Institute of Management & Research, PGDM Institute
Greater Noida

FIND YOUR SPARK

Plot No. 2, Knowledge Park-III, Greater Noida (U.P.) –201306

POST GRADUATE DIPLOMA IN MANAGEMENT (2024-25)
MID TERM EXAMINATION (TERM -I)

Subject Name: **Statistics for Decision Making**	Time: **01.00 hrs**
Sub. Code: **PG14**	Max Marks: **20**

Note: All questions are compulsory.
Part A carries 10 marks: all questions of 0.5 mark each)

1. Why is it important to learn statistics?

a) To make more accurate predictions   b) To interpret data and make informed decisions
c) To manage data more effectively   **d) All of the above**

2. Which of the following is a continuous variable?

a) Number of students in a class   **b) Temperature in degrees Celsius**
c) Gender   d) Type of car

3. Which term refers to a summary measure that describes a particular characteristic of a sample?

a) Parameter   **b) Statistic**   c) Population   d) Variable

4. What is the median of the following data set: 8, 12, 14, 18, 22?

a) 12   **b) 14**   c) 18   d) 15

5. The mean is often referred to as the:

a) Average   b) Middle value   c) Most frequent value   d) None of the above

6. If a data set has more than one mode, it is referred to as:

a) Unimodal   b) Bimodal   **c) Multimodal**   d) Non-modal

7. Which measure of central tendency is most affected by extreme obesrvation?

a) Mean   b) Median   c) Mode   d) Geometric mean

8. In a negatively skewed distribution, which of the following is true?

a) Mean > Median > Mode   **b) Mode > Median > Mean**
c) Median > Mean > Mode   d) Mean = Median = Mode

9. The geometric mean is most appropriate for which type of data?

a) Data measured on a nominal scale   **b) Data measured on a ratio scale**
c) Data with negative values   d) Data with outliers

10. The range of a data set is defined as:

a) The difference between the maximum and minimum values
b) The average of the data set   c) The square root of the variance
d) The sum of all the values in the data set

11. f the sum of all values in a data set is 72 and there are 9 values, what is the mean?

a) 6   **b) 8**   c) 9   d) 10

12. If the mean of a data set is 40 and the median is 50, what can be inferred about the distribution of the data?

a) The distribution is symmetric　　　　　b) The distribution is positively skewed
c) The distribution is negatively skewed　　　d) The distribution is uniform

13. The coefficient of variation is:

a) The ratio of the standard deviation to the mean　b) The square of the standard deviation
c) The range divided by the mean　　　　　　　d) None of the above

14. Which of the following measures is not affected by the units of the data?

a) Range　　　　b) Standard deviation　　　c) Variance　　**d) Coefficient of variation**

15. A data set with a skewness greater than 0 is:

a) Symmetric　　　**b) Positively skewed**　　　c) Negatively skewed　d) Uniformly distributed

16. Kurtosis measures the:

a) Spread of the data　　　　　　　　　　　b) Symmetry of the data
c) Flatness or peakedness of the data distribution　　d) Central tendency of the data

17. Calculate the range of the following data set: 5.5, 11.82, 25.5, 15.23, 20.9.

a) 15.2　　　　　**b) 20.0**　　　　　　c) 25.0　　　　　　d) 30.21

18. Which of the following is an example of a nominal variable?

a) Height　　　　b) Weight　　　　　**c) Eye color**　　　　d) Age

19. If a data set has a mean of 50 and a standard deviation of 10, what is the coefficient of variation (CV)?

a) 0.2　　　　　b) 0.5　　　　　　c) 10%　　　　　**d) 20%**

20. Which of the following is not a measure of central tendency?

a) Mode　　　　b) Median　　　　**c) Standard deviation**　　d) Mean

<center>**Part B carries 10 marks: all questions of 0.5 mark each)**</center>

The Class Faculty has provided data on the marks of 120 students in the subject of Statistics. The management seeks to understand the distribution of these marks by identifying key statistical values. As an analyst, your task is to calculate these values and provide insights that will support the management in their decision-making process.

Find the values From Question 21-25.

Marks	No. of Students
0-10	5
10-20	8
20-30	7
30-40	12
40-50	15
50-60	20
60-70	10
70-80	12
80-90	14
90-100	17

21. Determine the mean of the students' marks.

a) **57.25**　　　　　b) 60.75　　　　　c) 55.23　　　　　d) 50.45

22. Calculate the median of the students' marks.

a) 59.25   b) **56.5**   c) 57.00   d) 52.75

23. Assess the variability of the students' marks.

a) 28.94   b) 30.55   c) **26.28**   d) 22.44

24. Evaluate the consistency of the students' marks.

a) **45.91%**   b) 30.55%   c) 40.28%   d) 48.19%

25. Identify the first quartile (Q_1) value of the students' marks.

a) 40.25   b) 36.59   c) 40.75   d) **38.33**