

Time: One Hour

Max. Marks: 25

Instructions

Solve any 25 questions from Q.1 to Q.30

- 1 The sum of the squares of the deviations of all the values taken about their arithmetic mean is _____
 (A)Zero (B)Maximum (C)Minimum (D)Infinite
- 2 Which of the following is a continuous variable :
 (A)The numbers of workers in a firm,, (B)Weight (C)The number of students in a class. (D)The number of children in a family.
- 3 The square of standard deviation is called as :
 (A)Moments (B)Variance (C)Mean deviation (D)Dispersion.
- 4 The skewness when mean = 10 and median = 12 and standard deviation = 9
 (A)2 (B)-2 (C)3 (D)0.
- 5 The arithmetic mean of numbers 450, 350, 650, 400, 430, 700, 400, 750, 520 is :
 (A)420 (B)430 (C)520 (D)530.
- 6 The median of the values 25, 20, 15, 35, 18 is :
 (A)15 (B)18 (C)20 (D)25.
- 7 The geometric mean of the values 3 and 12 is :
 (A)3 (B)6 (C)12 (D)8.
- 8 The ninety nine points which divide the series into 100 equal parts are called :
 (A)Deciles (B)Quartiles (C)Range (D)Percentiles.
- 9 The difference between two extreme observations of the distribution is known as _____
 (A)Mode (B)Quartile deviation (C)Range (D)Mean deviation
- 10 The median class of the following distribution is :
 Class interval : 10-20, 20-30, 30-40, 40-50, 50-60
 Frequency : 3, 5, 20, 10, 5
 (A)10-20 (B)20-30 (C)30-40 (D)40-50.
- 11 Standard deviation is the least value of which the following :
 (A)Mean square deviation (B)Root mean square deviation, (C)Mean deviation (D)Quartile deviation.
- 12 The point of intersection of "less than" and "more than" ogive corresponds to :
 (A)Harmonic mean (B)Median (C)Mode (D)Geometric mean.
- 13 The most stable measure of central tendency is :
 (A)Simple mean (B)Harmonic mean (C)Median (D)Mode.
- 14 The weighted arithmetic mean of the first n natural numbers is :
 (A) $\frac{2n-1}{2}$ (B) $\frac{2n+1}{2}$ (C) $\frac{2n+1}{3}$ (D) $\frac{n+1}{2}$
- 15 The measure of kurtosis is :
 (A) $B^2 = 0$ (B) $B^2 = 1$ (C) $B^2 = 3$ (D) $B^2 = 4$
- 16 For any frequency distribution, the kurtosis is :
 (A)Greater than 1 (B)Less than 1 (C)Equal to 1 (D)Equal to -1.
- 17 Which of the following is true :
 (A)Mode = 3 Median + 2 Mean (B)Mean = 3 Median - 2 Mode (C)Median = 3 Mean - 2 Mode (D)Mode = 3 Median + 2 Mean.
- 18 Coefficient of variation is :
 (A) $100 \times \frac{S.D.}{Mean}$ (B) $\frac{S.D.}{Mean}$ (C) $50 \times \frac{S.D.}{Mean}$ (D) $100 \times \frac{Mean}{S.D.}$
- 19 If every value of the variable is increased by constant 'a' then arithmetic mean is :
 (A)Decreased by a (B)Increased by a (C)Increased by 2a (D)Decreased by 2a.
- 20 The skewness is positive if :
 (A)Mean = Median = Mode (B)Mean < Median < Mode (C)Median < Mode < Mean (D)Mode < Median < Mean.
- 21 The mean deviation about mean of the values 4, 5, 6, 9 is :
 (A) $\frac{2}{3}$ (B) $\frac{3}{2}$ (C)3 (D)2.
- 22 If for two events A and B, P(A) = 0.5, P(B) = 0.6, P(A ∪ B) = 0.7 then P(A/B) is :
 (A) $\frac{2}{3}$ (B) $\frac{1}{3}$ (C) $\frac{1}{2}$ (D) $\frac{3}{2}$
- 23 Exhaustive number of cases when three dice are thrown simultaneously is :
 (A)36 (B)81 (C)216 (D)256.
- 24 If A and B are independent event, with P(A) = 0.5, P(B) = 0.3 then P (A ∪ B) is :

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- (A) 0.65 (B) 0.15 (C) 0.8 (D) 0.
- 25 If two unbiased dice are thrown then the probability that both the dice show the same number is :
 (A) $\frac{1}{3}$ (B) $\frac{2}{3}$ (C) $\frac{1}{3}$ (D) $\frac{5}{6}$
- 26 A letter of English alphabet is chosen at random. The probability that the letter so chosen is a vowel is :
 (A) $\frac{1}{26}$ (B) $\frac{13}{26}$ (C) $\frac{1}{5}$ (D) $\frac{5}{26}$
- 27 A variable which can assume all values within a certain interval is called as :
 (A) Discrete Variable (B) Mixed Variable (C) Single Variable (D) Continuous Variable.
- 28 If $P(x) = \frac{x}{15}, x=1, 2, 3, 4, 5, 0, \text{otherwise}$. Then $P(x = 1 \text{ or } 2)$ is :
 (A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{1}{5}$ (D) $\frac{1}{7}$
- 29 If the probability density function is given by $f(x) = \begin{cases} k \cdot x(1-x), & 0 < x < 1 \\ 0, & \text{otherwise} \end{cases}$ Then the value of constant K is :
 (A) 2 (B) 3 (C) 6 (D) 7.
- 30 A random variable x has the following probability function :

$$X = x: -2 - 10 \quad 1 \quad 2 \quad 3 \quad P(x): 0.1 \quad K \quad 0.2 \quad K, 0.2 \quad 2k \quad 0.3 \quad 3k$$
 then value of constant k is :
 (A) $K = \frac{1}{5}$ (B) $K = \frac{1}{10}$ (C) $K = \frac{2}{5}$ (D) $K = \frac{1}{15}$