Descriptive Statistics and Introduction to Probability

1) The characteristic of an item that can not be measured in some definite units, is called___
   a) Variable
   b) Attribute
   c) Statistics
   d) Parameter

2) For the less than cumulative curve , ____ is taken along the X-axis.
   a) Lower class boundaries
   b) Upper class boundaries
   c) Class-mark
   d) Frequency

3) The arithmetic mean (average) of the first ten whole numbers is
   a) 5.5
   b) 5
   c) 4
   d) 4.5

4) The value of second quartile is coincides with ____.
   a) Mean
   b) Median
   c) Mode
   d) Standard deviation

5) Which of the following statement is false?
   a) 25% observation are below Q1
   b) 50% observation are below Q2
   c) 75% observations are below Q3
   d) 25% observations are below Q3

6) For the set of observation 30,18,20,15,10,23,28,12,16 the value of Q1= ____

a) 2.5

b) 12.5

c) 13.5

d) 15.5

7) _____ can be determined graphically from Histogram

a) Mean

b) Median

c) Mode

d) Quartile

8) The median in the set 6, 4, 2, 3, 4, 5, 5, 4 would be
a) 3
b) 6
c) 5
d) 4

9) The average of squared deviation from mean is called ____

a) Mean deviation

b) Variance

c) Standard deviation

d) Covariance

10) In the relation between mean , median ,Mode , the value of (Mean-Mode)=_____
a) Mean-median
b) 3(Mean-median)
c) 3(Mean + Median)
d) Mean + Median

11) Moment about mean are called _____.
a. Raw moment
b. Central moment
c. Moment about origin
d. Moment about Median

12) Departure from symmetry is called____.
a) Second moment
b) Kurtosis
c) Skewness
d) Variation

13) For symmetric distribution, the coefficient of skewness will be

a) 0
b) Q2
c) Q1
d) Q3

14) For positively skewed distribution ,Mean is always ___
    a) Less than the median
    b) Less than mode
    c) Greater than mode
    d) Difficult to tell

15) The degree of peaked ness or flatness of unimodal distribution is called ____
    a) Skewness
    b) Symmetry
    c) Diapersion
    d) Kurtosis

16) Bowley's coefficient of skewness is____.

    a) $\dfrac{Q_1+Q_3+2Q_2}{Q_1-Q_3}$

    b) $\dfrac{Q_3+Q_1-2Q_2}{Q_3-Q_1}$

    c) $\dfrac{Q_3+Q_1+2Q_2}{Q_3+Q_1}$

    d) $\dfrac{Q_3+Q_1-2Q_2}{Q_3-Q_2}$

17) First central moment is _____.
    a) Equal to 0
    b) Greater than 0
    c) Less than 0
    d) Not equal to 0

18) For Perfect positive correlation ,the coefficient of correlation r = ____
    a) $0 < r < 1$
    b) $-1 < r < 0$
    c) $r = 1$
    d) $r = 0$

19) Which of the following statement is true?
    a) Scatter Plot gives only direction of correlation
    b) Scatter Plot gives only magnitude of correlation
    c) Scatter Plot gives direction and magnitude of correlation
    d) Scatter Plot neither gives direction nor magnitude of correlation

20) Karl-Pearson's coefficient gives _____ of correlation.
    a) Only magnitude
    b) Only direction
    c) Both magnitude as well as direction
    d) Neither magnitude nor direction

21) The set of all possible outcomes is called___
    a) Sample space

b) Experiment
c) Event
d) Probability

22) Two events A and B are Exhaustive events is ____
    a) $A \cup B = \emptyset$
    b) $A \cup B = S$
    c) $A \cap B = \emptyset$
    d) $A \cap B \neq \emptyset$

23) Two events A and B are Mutually Exclusive events is ____
    $a)$ $A \cup B = \emptyset$
    $b)$ $A \cup B = S$
    $c)$ $A \cap B = \emptyset$
    $d)$ $A \cap B \neq \emptyset$

24) $P(A \cup B) =$ ____
    a) $P(A) + P(B) + P(A \cap B)$
    b) $P(A) + P(B) - P(A \cap B)$
    c) $P(A) - P(B) - P(A \cap B)$
    d) $P(A) - P(B) + P(A \cap B)$

25) $P(A \cup A') =$ ____
    a) P(A) P(A')
    b) P(A)+P(A')
    c) P(A) – P(A')
    d) $\emptyset$