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**Binomial Distribution**

- 1) For a binomial distribution with parameters  $n$  and  $p$
- a) mean = variance                      b) mean > variance  
c) mean  $\leq$  variance                      d) there is no relation between mean and variance
- 2) For binomial distribution variance is given by \_\_\_\_\_
- a)  $np$                       b)  $npq$                       c)  $\sqrt{npq}$                       d)  $pq$
- 3) For binomial distribution the mean is 20 and variances is 15. So that value of  $p$  is \_\_\_\_\_
- a)  $\frac{3}{4}$                       b)  $\frac{1}{4}$                       c)  $\frac{3}{5}$                       d)  $\frac{2}{5}$
- 4) Binomial variate has only \_\_\_\_\_ possible outcomes.
- a) Two                      b) Three                      c) Four                      d) None of these
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**Probability**

- 1) If two dice are rolled then the probability of getting sum of the numbers on dice as 12 is
- a)  $\frac{1}{36}$                       b)  $\frac{5}{36}$                       c)  $\frac{1}{12}$                       d)  $\frac{1}{6}$
- 2) If  $P(A) = 0.60$ ,  $P(A \cup B) = 0.70$  then  $P(A) + P(B) = \text{-----}$
- a) 1.4                      b) 1.3                      c) 0.10                      d) 0.70
- 3) Probability of an impossible event is always equal to \_\_\_\_\_
- a) 1                      b) 0.5                      c) zero                      d) none of these
- 4) There will be 53 Sundays in a leap year the probability will be \_\_\_\_\_
- a)  $\frac{1}{7}$                       b)  $\frac{2}{7}$                       c)  $\frac{3}{7}$                       d)  $\frac{4}{7}$
- 5) Probability of any event always lies in between
- a)  $-1$  to  $+1$                       b)  $0$  to  $+1$                       c)  $-1$  to  $1$                       d) none of these
- 6) Probability of getting a black card, when a card is drawn from a pack of cards is
- a)  $\frac{1}{13}$                       b)  $\frac{1}{2}$                       c)  $\frac{4}{13}$                       d) none of these
- 7) The set of all possible outcomes of an experiment is called \_\_\_\_\_.
- a) Event                      b) Sample space                      c) Probability                      d) Outcomes
- 8) Probability of drawing a card of king form a pack of cards is \_\_\_\_\_.
- a)  $\frac{1}{13}$                       b)  $\frac{1}{4}$                       c)  $\frac{1}{5}$                       d)  $\frac{1}{16}$
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### Normal distribution

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- 1) The mode and mean of normal distribution both are 20 then median will be -----  
a) 25                      b) 40                      c) 10                      d) 20
- 2) If Mean and S.D. of normal variate is 40 and 8 respectively then Q.D. is-----  
a) 5.33                      b) 5                      c) 6                      d) 8
- 3) For normal distribution  $Q_1$  is 92 and median is 110 so that value of  $Q_3$  is \_\_\_\_\_  
a) 92                      b) 110                      c) 128                      d) 220
- 4) The area under the normal curve  $\mu - 3\sigma$  and  $\mu + 3\sigma$  is-----  
a) 0.9                      b) 0.0027                      c) 0.9973                      d) None of these
- 5) For normal distribution \_\_\_\_\_.  
a) Mean > Median                      b) Median > Mode                      c) Mean = Median = Mode                      d) None of these
- 6) Normal curve is \_\_\_\_\_.  
a) J shaped                      b) U shaped                      c) Symmetric Bell shaped                      d) None of these
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### Statistical Quality Control

- 1) The faults due to chance causes -----  
a) can be removed                      b) beyond the control of human hand  
c) cannot be removed                      d) sometimes may be removed
- 2) Control limits of p and np charts are based upon \_\_\_\_\_ distribution  
a) Binomial                      b) Normal                      c) Poisson                      d) None of these
- 3) Control charts has been devised by \_\_\_\_\_  
a) Walter A Schwarts                      b) Karl Pearsons                      c) Amarthya Sen                      d) None of these
- 4) \_\_\_\_\_ control charts used for fraction defective.  
a) Mean                      b) Range                      c) p                      d) np
- 5) Control chart contains how many horizontal lines ?  
a) 4                      b) 3                      c) 5                      d) none of these

- 6) Demands for sale for cold drinkers is example of \_\_\_\_\_.
- a) Cyclic variation      b) Seasonal variation      c) Secular trend      d) none of these
- 7) \_\_\_\_\_ type of causes can be detected and removed from the production process.
- a) Chance causes      b) Assignable cause      c) A and B both      d) None of these
- 8) \_\_\_\_\_ control charts used for the number of defects.
- a)  $\bar{x}$       b)  $np$       c)  $p$       d)  $c$
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### Index Number

- 1) In Paasche's price index number formula the weights belong to -----
- a) the base period      b) the current period      c) any arbitrary period      d) none of these
- 2) ) Index number is a \_\_\_\_\_ a) Measures of relative changes      b) Special type of average  
c) Both a) and b)      d) None of these
- 3) \_\_\_\_\_ index numbers is an Ideal Index Number.
- a) Laspeyre's      b) Paasche's      c) Fisher's      d) None of these
- 4) In Laspreye's price index number, what is used as a weight ?
- a) Price in base year      b) Quantity in a base year      c) Quantity in a current year      d) None of these
- 5) Fisher's price index number is \_\_\_\_\_ of product of Laspreye's price index number and Paachels price index number.
- a) Square      b) Square root      c) Cube root      d) None of these

### Time Series

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- 1) Demands for sales for cold drinkers is an example of-----
- a) cyclic variation      b) seasonal variation      c) secular trend      d) irregular variation
- 2) In time series data is arranged
- a) geographically      b) qualitatively      c) chronologically      d) none of these
- 3) Irregular variations in time series are caused by \_\_\_\_\_
- a) Earthquakes      b) War in a country      c) Floods in the state      d) All the above
- 4) Use of an umbrella in rainy seasons is included in \_\_\_\_\_
- a) Secular trend      b) Seasonal variation      c) Cyclic variation      d) None of these
- 5 Variations due to unpredictable causes such as wars earthquakes etc. are called as \_\_\_\_\_

a) Secular trend      b) Seasonal variation      c) Irregular variation      d) None of these

6) A time series consists of -----

a) Two components      b) Three components      c) Four components      d) None of these

7) In time series analysis \_\_\_\_\_ components is totally unpredictable.

a) Secular trend      b) Seasonal variations      c) Cyclical variations      d) Irregular variations

8) A time series is a set of data recorded -----

a) Periodically      b) at time or space intervals      c) at successive points of time      d) all the above

9) Cyclic variations in a time series are caused by -----

a) Earthquakes      b) War in a country      c) Floods in the states      d) None of these

10) Increase in prices of commodities is an example of-----

a) Secular trend      b) Seasonal variation      c) Cyclic variation      d) None of these