***BINOMIAL DISTRIBUTION***

1. A binomial random variable with large samples can be approximated as
2. Exponential
3. Bernoulli
4. Binomial
5. **Normal**
6. Which of the below is the standard deviation of the binomial distribution
   1. npq
   2. np2q
   3. np
7. In a Binomial Distribution, if ‘n’ is the number of trials and ‘p’ is the probability of success, then the mean value is given by
   1. np
   2. n
   3. P
   4. np(1-p)
8. If ‘X’ is a random variable, taking values ‘x’, probability of success and failure being ‘p’ and ‘q’ respectively and ‘n’ trials being conducted, then what is the probability that ‘X’ takes values ‘x’? Use Binomial Distribution
   1. P(X = x) = nCx px qx
   2. **P(X = x) = nCx px q(n-x)**
   3. P(X = x) = xCn qx p(n-x)
   4. P(x = x) = xCn pn qx
9. In a binomial distribution, the mean and variance are equal
   1. True
   2. False
10. It is suitable to use Binomial Distribution only for
    1. Large values of ‘n’
    2. Fractional values of ‘n’
    3. **Small values of ‘n’**
    4. Any value of ‘n’
11. In a Binomial Distribution, if p = q, then P(X = x) is given by?
    1. **nCx (0.5)n**
    2. nCn (0.5)n
    3. nCx p(n-x)
    4. nCn p(n-x)
12. Binomial distribution is a
    1. Continuous distribution
    2. **Discrete distribution**
    3. Irregular distribution
    4. Not a probability distribution
13. The opposite faces of a dice are colored identically – green, red and blue. If the dice is thrown thrice, the probability of obtaining red color on top face of the dice at least twice is
    1. **7/27**
    2. 10/127
    3. 19/27
    4. 1/3
14. In a factory which manufactures TV sets, 10% are defective TV sets. Ten TV sets are chosen randomly from the factory. The probability that exactly 2 of the chosen items are defective is
    1. 0.0036
    2. **0.1937**
    3. 0.2234
    4. 0.3874
15. In a binomial distribution, the mean is 15 and variance is 10, then, the number of trials “n” is
    1. 28
    2. 16
    3. **45**
    4. 25
16. In a binomial distribution, the mean is 5 and variance is 4. The number of trials is
    1. 18
    2. 17
    3. **25**
    4. 27