(A) 1/10 (B) 3/10 (C) 1/9 (D) 4/9

14. 100 cards are numbered from 1 to 100. Find the probability of getting a prime number.
(A) 3/4 (B) 27/50 (C) 1/4 (D) 29/100

15. A bag contains 5 red balls and some blue balls .If the probability of drawing a blue ball is double that of a red ball, then the number of blue balls in a bag is:
(A) 5 (B) 10 (C) 15 (D) 20

16. A box of 600 bulbs contains 12 defective bulbs. One bulb is taken out at random from this box. Then the probability that it is non-defective bulb is:
(A) 143/150 (B) 147/150 (C) 1/25 (D) 1/50

17. Cards marked with numbers 2 to 101 are placed in a box and mixed thoroughly. One card is drawn from this box randomly, then the probability that the number on card is a perfect square.
(A) 9/100 (B) 1/10 (C) 3/10 (D) 19/100

18. What is the probability of getting 53 Mondays in a leap year?
(A) 1/7 (B) 53/366 (C) 2/7 (D) 7/366

19. A card is drawn from a well shuffled deck of 52 cards. Find the probability of getting a king of red suit.
(A) 1/26 (B) 3/26 (C) 7/52 (D) 1/13

20. A game of chance consists of spinning an arrow which is equally likely to come to rest pointing to one of the number 1,2,3……12 ,then the probability that it will point to an odd number is:
(A) 1/6 (B) 1/12 (C) 7/12 (D) 5/12

21. A game consists of tossing a one rupee coin 3 times and noting its outcome each time. Aryan wins if all the tosses give the same result i.e. three heads or three tails and loses otherwise. Then the probability that Aryan will lose the game.
(A) 3/4 (B) 1/2 (C) 1 (D) 1/4

a) 3 b) 4 c) 5 d) 7

32.Out of the following values, which one is not possible in probability?

a) P(x) = 1 b) ∑ x P(x) = 3
c) P(x) = 0.5 d) P(x) = – 0.5

33.If E(x) = 2 and E(z) = 4, then E(z – x) =?

a) 2 b) 6 c) 0 d) Insufficient data

34.The covariance of two independent random variable is _____ .

a) 1 b) 0 c) – 1 d) Undefined

35.If Σ P(x) = k^2 – 8 then, the value of k is?

a) 0 b) 1 c) 3 d) Insufficient data

36.If P(x) = 0.5 and x = 4, then E(x) = ?

a) 1 b) 0.5 c) 4 d) 2

37.In a discrete probability distribution, the sum of all probabilities is always?

a) 0 b) Infinite c) 1 d) Undefined

38.If the probability of hitting the target is 0.4, find mean and variance.

a) 0.4, 0.24 b) 0.6, 0.24 c) 0.4, 0.16 d) 0.6, 0.16

39.If the probability that a bomb dropped from a place will strike the target is 60% and if 10 bombs are dropped, find mean and variance?

a) 0.6, 0.24 b) 6, 2.4 c) 0.4, 0.16 d) 4, 1.6

40. Find the mean of tossing 8 coins.

a) 2 b) 4 c) 8 d) 1

41. What is the mean and variance for standard normal distribution?

a) np b) npq c) np2q d) npq2

49. 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 .

a) P(X = x) = nCx px qx
b) P(X = x) = nCx px q(n-x)
c) P(X = x) = xCn qx p(n-x)
d) P(x = x) = xCn pn qx

50. If 'p', 'q' and 'n' are probability pf success, failure and number of trials respectively in a Binomial Distribution, what is its Standard Deviation?

a) $\sqrt{np}$ b)$\sqrt{pq}$ c) (np)2 d) $\sqrt{npq}$