Mahesh Public School
Class 10th

Chapter 15 Probability

1. A letter is chosen at random from the word 'ASSASSINATION'. The probability that it is a vowel is **(1)**
   a. $\frac{6}{13}$
   b. $\frac{7}{13}$
   c. $\frac{6}{31}$
   d. $\frac{3}{13}$
2. A number 'x' is chosen at random from the numbers -4, -3, -2, -1, 0, 1, 2, 3, 4, 5. The probability that $|x| < 3$ is **(1)**
   a. 1
   b. 0
   c. $\frac{1}{2}$
   d. $\frac{7}{10}$
3. An unbiased die is thrown once. The probability of getting an odd number is **(1)**
   a. $\frac{1}{3}$
   b. $\frac{1}{2}$
   c. $\frac{2}{5}$
   d. $\frac{2}{3}$
4. A number is selected at random from 1 to 75. The probability that it is a perfect square is **(1)**
   a. $\frac{10}{75}$
   b. $\frac{8}{75}$
   c. $\frac{6}{75}$
   d. $\frac{4}{75}$
5. A lot consists of 40 mobile phones of which 32 are good, 3 have only minor defects and 5 have major defects. Ram will buy a phone if it is good or have minor defects. One phone is selected at random. The probability that it is acceptable to Ram is___. **(1)**
   a. $\frac{3}{40}$
   b. $\frac{4}{35}$
   c. $\frac{3}{5}$

d. $\frac{7}{8}$

6. A black dice and a white dice are thrown at the same time. Write all the possible outcomes. What is the probability that the difference of the numbers appearing on the top of the two dice is 2? **(1)**

7. Three unbiased coins are tossed together. Find the probability of getting at least two heads? **(1)**

8. Why is tossing a coin considered as the way of deciding which team should get the ball at the beginning of a football match? **(1)**

9. Two dice are thrown simultaneously. Find the probability of getting a multiple of 2 on one dice and a multiple of 3 on the other. **(1)**

10. In a simultaneous throw of a pair of dice, find the probability of getting a number other than 5 on any dice. **(1)**

11. Two coins are tossed together. Find the probability of getting both heads or both tails. **(2)**

12. A bag contains 5 black, 7 red and 3 white balls. A ball is drawn from the bag at random. Find the probability that the ball drawn is(i) red (ii) black or white (iii) not black. **(2)**

13. A bag contains lemon flavoured candies only. Malini takes out one candy without looking into the bag. What is the probability that she takes out? **(2)**
    i. an orange flavoured candy?
    ii. a lemon flavoured candy?
14. Cards marked with numbers 5 to 50 are placed in a box and mixed thoroughly. A card is drawn from the box at random. Find the probability that the number on the taken out card is **(3)**
    i. a prime number less than 10
    ii. a number which is a perfect square.

15. Cards numbered 11 to 60 are kept in a box. If a card is drawn at random from the box, find the probability that the number on the drawn card is (i) an odd number, (ii) a

perfect square number, (iii) divisible by 5, (iv) a prime number less than 20. **(3)**

16. A bag contains, white, black and red balls only. A ball is drawn at random from the bag. If the probability of getting a white ball is $\frac{3}{10}$ and that of a black ball is $\frac{2}{5}$, then find the probability of getting a red ball. If the bag contains 20 black balls, then find the total number of balls in the bag. **(3)**

17. The probability of selecting a red ball at random from a jar that contains only red, blue and orange balls is $\frac{1}{4}$. The probability of selecting a blue ball at random from the same jar is $\frac{1}{3}$. If the jar contains 10 orange balls, find the total number of ball in the jar. **(3)**

18. All red face cards are removed from a pack of playing cards. The remaining cards are well-shuffled and then a card is drawn at random from them. Find the probability that the drawn card is **(4)**
    i. a red card,
    ii. a face card,
    iii. a card of clubs.

19. A box contains cards bearing numbers 6 to 70. If one cards is drawn at random from the box, find the probability that it bears **(4)**
    i. a one digit number.
    ii. a number divisible by 5,
    iii. an odd number less than 30,

20. A box contains 90 discs which are numbered 1 to 90. If one disc is drawn at random from the box, find the probability that it bears **(4)**
    i. a two digit number,
    ii. number divisible by 5.