PROBABILITY

NUMERICAL BASED ON CARDS

EXERCISE

Q.1 A card is drawn from a pack of 52 cards. What is the probability of getting an ace ?

Q.2 When a card is drawn from a pack of 52 cards. Find the probability that it may be either a king or a queen.

Q.3 One card is drawn from a pack of 52 cards. Find the probability that the card drawn is red or king.

Q.4 The king, queen and jack of clubs are removed from a deck of 52 playing cards and then well shuffled. One card is selected from the remaining cards. Find the probability of getting

(i)   a heart   (ii)   a king

(iii)   a club   (iv)   the '10' of hearts

Q.5 A card is drawn at random from a well suffled desk of playing cards. Find the probability that the card drawn is

(i) A card of spade or an ace   (ii) A red king

(iii) Neither a king nor a queen   (iv) Either a king or a queen

Q.6 There are 30 cards of same size in a bag on which number 1 to 30 are written. One card is taken out of the bag at random. Find the probability that the number of the selected card is not divisible by 3.

Q.7 Cards. marked with number 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

(i) a prime number less than 10.

(ii) a number which is a perfect square.   [CBSE - 2008]

Q.8 A box contains 11 cards numbered 1, 2, 3, ... , 11 and are mixed thoroughly. A card is drawn at random from the box. What is the probability that the number on the card is

(i) odd ?

(ii) even ?

(iii) prime ?

(iv) divisible by 3 ?

Q.9 A card is drawn from a well shuffled pack of 52 playing cards. What is the probability of getting ?

(i) a king ?

(ii) not a king ?

(iii) a red queen ?

(iv) a face card ?

(v) a black face card ?

(vi) a black card ?

Q.10 A card is drawn at random from a pack of 52 cards. Find the probability that the card drawn is

(i) A black king

(ii) Either a black card or a king

(iii) Black and a king

(iv) A jack, queen or a king

(v) Neither a heart nor a king

(vi) Spade or an ace

(vii) Neither an ace nor a king.

ANSWER

1. $\dfrac{1}{13}$

2. $\dfrac{2}{13}$

3. $\dfrac{7}{13}$

4.   (i) $\dfrac{13}{49}$,   (ii) $\dfrac{3}{49}$ (iii) $\dfrac{10}{49}$ (iv) $\dfrac{1}{49}$

5.   (i) $\dfrac{4}{13}$ (ii) $\dfrac{1}{26}$ (iii) $\dfrac{11}{13}$ (iv) $\dfrac{2}{13}$

6. $\dfrac{2}{3}$

7.   (i) $\dfrac{1}{23}$ (ii) $\dfrac{5}{46}$

8.   (i) $\dfrac{6}{11}$ (ii) $\dfrac{5}{11}$ (iii) $\dfrac{5}{11}$ (iv) $\dfrac{3}{11}$

9.   (i) $\dfrac{1}{13}$ (ii) $\dfrac{12}{13}$ (iii) $\dfrac{1}{26}$

       (iv) $\dfrac{3}{13}$ (v) $\dfrac{3}{26}$ (vi) $\dfrac{1}{2}$

10.   (i) 1/26   (ii) 7/13   (iii) 1/26   (iv) 3/13

       (v) 9/13   (vi) 9/13   (vii) 11/13