PROBABILITY

NUMERICAL BASED ON COIN AND DICE

EXERCISE

Q.1 To dice are thrown simultaneously. Find the probability of getting :

(i) An even number of the sum

(ii) The sum as a prime number

(iii) A total of at least 10

(iv) A multiple of 2 on one dice and a multiple of 3 on the other.

Q.2 If a coin is tossed two times, what is the probability of getting 'head' at least once ?

Q.3 Two coins are tossed simultaneously. Find the probability of getting -

(i) two tails

(ii) at least one tail

(iii) no tail

Q.4 On tossing three coins simultaneously, find the probability of getting -

(i) 3 tails

(ii) 2 tails

(iii) No tail

(iv) 2 heads and 1 tail

(v) at least one head

Q.5 Fill in the blanks with appropriate correct answer-

(i) A pair of fair dice is thrown and one die shows a four. The probability that the other die shown 5 is .....

(ii) Probability of a sure event is .....

(iii) Probability of an impossible event is .....

(iv) The probability of an event (other than sure and impossible event) lies between .....

(v) A die is rolled once. The probability of getting a prime number is .....

Q.6 In a simultaneous throw of a pair of dice, find the probability of getting

(i) 8 as the sum

(ii) A doublet

(iii) A doublet of prime numbers

(iv) A doublet of odd numbers

(v) A sum greater than 9

(vi) An even number on first

(vii) An even number on one and a multiple of 3 on the other

(viii) Neither 9 nor 11 as the sum of the numbers on the faces

(ix) A sum less than 6

(x) A sum less than 7

(xi) A sum more than 7

ANSWER

1. (i) $\frac{1}{2}$ (ii) $\frac{15}{36}$ (iii) $\frac{1}{6}$ (iv) $\frac{11}{36}$

2. $\frac{3}{4}$

3. (i) $\frac{1}{4}$ (ii) $\frac{3}{4}$ (iii) $\frac{1}{4}$

4. (i) $\frac{1}{8}$ (ii) $\frac{3}{8}$ (iii) $\frac{1}{8}$ (iv) $\frac{3}{8}$ (v) $\frac{7}{8}$

5. (i) $\frac{1}{36}$ (ii) 1 (iii) 0 (iv) 0 and 1 (v) $\frac{1}{2}$

6. (i) 5/36 (ii) 1/6 (iii) 1/12

(iv) 1/12 (v) 1/6 (vi) 1/2

(vii) 11/36 (viii) 5/6 (ix) 5/18

(x) 5/12 (xi) 5/12