KIRAN TUTORIALS **Seat No.** | | | | | | | |

Std 10 (English) **Mathematics Part - I**

Time 1HRS **Chapter 5th chp** **Marks 20**

Q.1 Multiple Choice Questions **2**

1 From the following options, find the correct answer if P is an event of getting a head and an even number when a die and a coin are thrown simultaneously.

a. P = {(H, 1), (H, 2), (T, 4)} b. P = {(H,1), (H, 3), (H, 5)}

c. P = {(H, 2), (H, 4), (H, 6)} d. P = {(H, 2), (H, 3), (H, 4)}

2 From the following options find the correct answer if A is an event of getting an even number on upper face when a die is rolled.

a. A = {1, 2, 3} b. A = {2, 4, 5} c. A = { 1, 3, 5} d. A = {2, 4, 6}

Q.2 Answer the following **2**

1 In each of the following experiments, write the sample space S and the number of sample points n(S)

i. three coins are tossed simultaneously.

ii. Form two-digit numbers using the digits 0,1,2,3 without repeating the digit.

2 If two coins are tossed simultaneously, find the probability of getting a head on both the coins.

Q.3 Attempt the following (Activity) **2**

1 Two dice are rolled simultaneously. Find the probability that

i. the sum of the numbers on their upper faces is at the most 5.

ii. the sum of the numbers on their upper faces is at the least 6.

i. n(S) = 36

n(A) = 10

$\therefore$ P(A) = _____

$= \frac{10}{36}$

= _____

ii. n(S) = 36

n(A) = 26

P(A) = _____

$= \frac{26}{36}$

= _____

Q.4 Answer the following **4**

1 A card is drawn at random from well-shuffled pack of 52 playing cards. Find the probability that the card drawn is a spade.

2 A card is drawn at random from well-shuffled pack of 52 playing cards. Find the probability that the card drawn is

a face card.

Q.5 Solve the following(Any One) **3**

1 A box contains 25 cards numbered 1 to 25. A card is drawn from the box at random. Find the probability that the number on the card is:

i. even

ii. prime

iii. multiple of 6

2 If one die is rolled then find the probability of each of the following events.

(i) Number on the upper face is prime
(ii)Number on the upper face is even.

Q.6 Answer the following(Any One) **4**

1 A sanitation committee of 2 members is to be formed from 3 boys and 2 girls. Write sample space 'S' and number of sample points n(S). Also write the following events in set form and number of sample points in the event.

(i) Condition for event A : at least one girl must be a member of the committee.
(ii) Condition for event B : Committee must be of one boy and one girl.
(iii) Condition for event C : Committee must be of boys only.
(iv) Condition for event D : At the most one girl should be a member of the committee.

2 Two dice are rolled, write the sample space 'S' and number of sample points n(S). Also write events and number of sample points in the event according to the given condition.

(i) Sum of the digits on upper face is a prime number.
(ii) Sum of the digits on the upper face is multiple of 5.
(iii) Sum of the digits on the upper face is 25.
(iv) Digit on the upper face of the first die is less than the digit on the second die.

Q.7 Answer the following (Any One) **3**

1 All the three face cards of spades are removed from a well-shuffled pack of 52 cards. A card is then drawn at random from the remaining pack. Find the probability of getting

i. a black face card
ii. a queen
iii. a black card
iv. a heart
v. a spade
vi. '9' of black colour

2 A bag contains 15 balls of which some are white and others are red. If the probability of drawing a red ball is twice that of a white ball, find the number of white balls in the bag.