PROBABILITY	CM23M101501

Multiple Choice Questions: **1 mark each**

1. Two coins are tossed together. The probability of getting head on both is:

(a) 0 (b) $\frac{1}{4}$ (c) $\frac{3}{4}$ (d) $\frac{1}{2}$

2. A bag contains cards which are numbered from 2 to 90. A card is drawn at random from the bag. The probability that it bears a two digit number is:

(a) $\frac{88}{92}$ (b) $\frac{88}{90}$ (c) $\frac{81}{89}$ (d) $\frac{89}{90}$

3. The probability of getting a prime number in single throw of a dice is:

(a) 0 (b) $\frac{1}{3}$ (c) $\frac{1}{2}$ (d) $\frac{1}{4}$

4. The probability of getting a bad egg from a lot of 400 eggs is 0.035. The number of bad eggs in the lot is :

(a) 7 (b) 14 (c) 21 (d) 28

5. In a throw of two dice, the probability of getting a sum of 10 is:

(a) $\frac{1}{12}$ (b) $\frac{1}{36}$ (c) $\frac{1}{6}$ (d) $\frac{1}{4}$

Very Short Answer Type Questions: **2 marks each**

6. A card is drawn at random from a pack of well shuffled deck of playing cards. Find the probability that the card is:

   (a) a king or a jack   (b) a card of spade or an ace

7. From a group of 2 boys and 2 girls, two children are selected at random. What is the sample space representing the event. Find the probability that one boy and one girl is selected.

8. 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 card is:

   (a) a prime number less than 10   (b) a number which is a perfect square.

Short Answer Type Questions: **3 marks each**

9. A box contains 17 cards numbered 1, 2, 3, ... 16, 17. A card is drawn at random from the box. Find the probability that the number on the drawn card is:

   (a) odd   (b) even and prime   (c) divisible by 3

10. A bag contains 5 white balls, 7 red balls, 4 black balls and 2 blue balls. One ball is drawn at random from the bag. What is the probability that the ball drawn is:

    (a) white or blue   (b) not white   (c) neither white nor black

11. A box contains 90 discs which are numbered from 1 to 90. If one disc is drawn at random from the box, find the probability that it bears:

    (a) a two-digit number   (b) a perfect square number   (c) a number divisible by 5.

Long Answer Type Questions: **5 marks each**

12. A card is drawn at random from a well-shuffled deck of playing cards. Find the probability that the card drawn is:

    (a) a king or a jack   (b) a non-ace   (c) a red card   (d) neither a king nor a queen

    (e) a black king or red queen.

13. A box has cards numbered 14 to 99. Cards are mixed thoroughly and a card is drawn from the bag at random.

Find the probability that the number on the card, drawn from the box is:

(a) an odd number   (b) a perfect square number   (c) a number divisible by 7

(d) a number divisible by 2 or 5   (e) a number divisible by 2 and 5.