Mathematics

Practice Test Paper 1

(Chapter 14: Probability)

Class X | 2026–27

Time Allowed: 45 Minutes | Maximum Marks: 25

General Instructions

1. All 13 questions are compulsory. The paper has four sections: A, B, C and D.
2. Section A - 5 marks; Section B - 8 marks; Section C - 9 marks; Section D - 3 marks.
3. Choose one correct option in Section A. Show the necessary steps and reasoning in Sections B, C and D.
4. Give probabilities in their simplest form. Use of calculators is not allowed.

SECTION A

(5 questions × 1 mark = 5 marks)

1. Which value cannot be the probability of an event?

(A) $\frac{3}{5}$ (B) 1.2

(C) 0.12 (D) 0

2. If P(E) = 0.05, find P(not E).

(A) 0.95 (B) 0.5

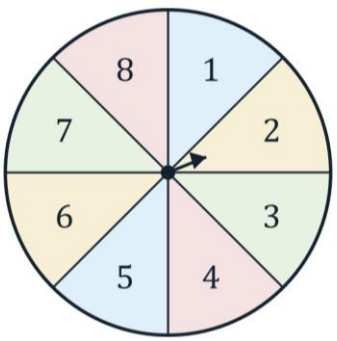
(C) 0.05 (D) 1.05

3. A fair die is rolled once. What is the probability of a prime number?

(A) $\frac{1}{6}$ (B) $\frac{1}{3}$

(C) $\frac{1}{2}$ (D) $\frac{2}{3}$

4. The spinner shown has eight equally likely sectors. What is the probability of an odd number?



(A) $\frac{3}{8}$ (B) $\frac{5}{8}$

(C) $\frac{1}{8}$ (D) $\frac{1}{2}$

5. One card is drawn from a well-shuffled standard deck of 52 cards. Find the probability of a face card.

(A) $\frac{3}{13}$ (B) $\frac{1}{13}$

(C) $\frac{4}{13}$ (D) $\frac{1}{4}$

SECTION B

(4 questions × 2 marks = 8 marks)

6. A bag has 3 red and 5 black balls of the same size. One ball is drawn at random. Find the probabilities of (i) red and (ii) not red.

7. A coin is selected at random from the collection below, with every coin equally likely. Find the probabilities of (i) a 50 paise coin and (ii) a coin that is not worth ₹5.

Denomination	50 paise	₹1	₹2	₹5
Number of coins	100	50	20	10

8. A lot has 20 bulbs, including 4 defective bulbs. A good bulb is removed and not replaced. A bulb is now chosen at random from the remainder. Find the probabilities that it is (i) good and (ii) defective.

9. A card is chosen at random from cards numbered 1 to 30. Find the probability that its number is divisible by 4 or by 5.

SECTION C

(3 questions × 3 marks = 9 marks)

10. Two fair dice are rolled independently. Find the probabilities that their sum is (i) 8, (ii) 13 and (iii) at most 12.

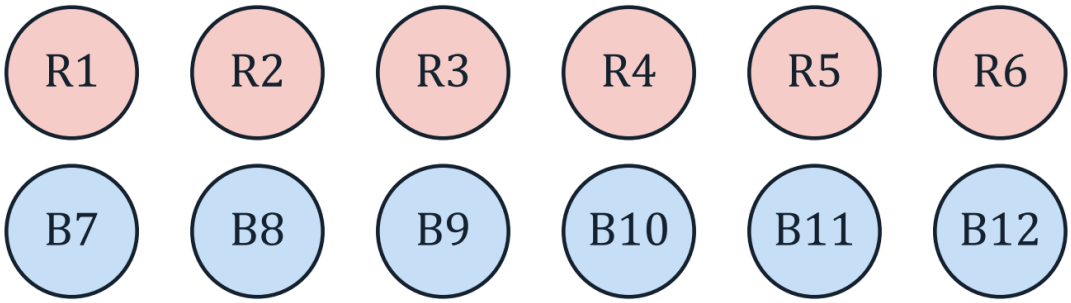
11. A fair coin is tossed three times independently. A player wins only if all three results are the same. List the winning outcomes and find the probability of losing.

12. A bag contains 5 red balls and some blue balls, all equally likely to be drawn. The probability of blue is twice the probability of red. Find the number of blue balls and the probability of drawing blue.

SECTION D

(Application Based Question - 3 marks)

13. The twelve counters shown are placed in a bag and mixed. R means red and B means blue. Each counter is equally likely to be drawn. Find the probabilities below.



(i) The counter is red.

(ii) Its number is even.

(iii) It is red and its number is even.