Mathematics

Practice Test Paper 2

(Chapter 14: Probability)

Class X | 2026–27

Time Allowed: 45 Minutes | Maximum Marks: 25

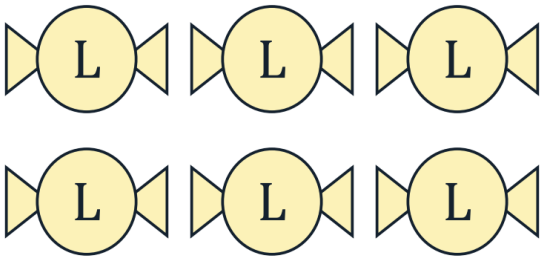
General Instructions

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. The bag contains exactly the six candies shown, each marked L for lemon. What is the probability that a randomly selected candy is lemon-flavoured?



(A) 0 (B) $\frac{1}{2}$

(C) 1 (D) 2

2. How many cards in a standard deck of 52 are not face cards?

(A) 12 (B) 36

(C) 48 (D) 40

3. Each letter of MATHEMATICS is written on a separate identical slip. One slip is chosen at random. Find the probability of a vowel.

(A) $\frac{4}{11}$ (B) $\frac{3}{11}$

(C) $\frac{5}{11}$ (D) $\frac{6}{11}$

4. Two fair coins are tossed independently. Find the probability of at most one tail.

(A) $\frac{1}{4}$ (B) $\frac{3}{4}$

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

5. One of the one-digit prime numbers is chosen at random. What is the probability that it is even?

(A) $\frac{1}{2}$ (B) $\frac{3}{4}$

(C) $\frac{1}{4}$ (D) $\frac{1}{8}$

SECTION B

(4 questions × 2 marks = 8 marks)

6. A fair die is rolled once. Find the probabilities of (i) at least 4 and (ii) less than 4. Explain why the answers add to 1.

7. One book is chosen at random from the shelf described below. Find the probabilities of (i) not a storybook and (ii) a science or a maths book.

Book type	Science	Stories	Maths	History
Number	8	12	15	5

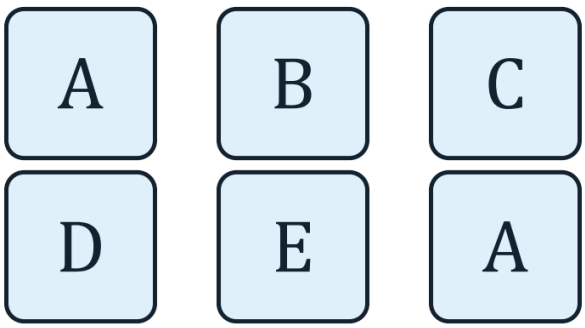
8. A card is drawn from a well-shuffled standard deck. Find the probability that it is neither an ace nor a king.

9. Identical cards are numbered from 20 to 60, inclusive. One is drawn at random. Find the probability that its number is a multiple of 7.

SECTION C

(3 questions × 3 marks = 9 marks)

10. The six equally likely faces of a fair letter die are shown. On one roll, find the probabilities of (i) A, (ii) D and (iii) not A.



11. Two fair dice are rolled independently. List all ordered outcomes for which the product is 12, and find the probability of this event.

12. A bag contains 12 blue balls and some red balls, all equally likely to be drawn. If P(red) = 3/5, find the number of red balls and P(blue).

SECTION D

(Application Based Question - 3 marks)

13. A box contains the marbles listed below. One marble is drawn at random. Find each probability.

Colour	Red	White	Green
Number	5	8	4

(i) The marble is red.

(ii) The marble is white.

(iii) The marble is not green.