

Model Question Paper**Probability - Part IV**

10th Standard

MathsReg.No. :

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I. Answer all the questions.**II. Use blue pen only.**

Time : 01:00:00 Hrs

Total Marks : 40

5 x 1 = 5

Part-A

- 1) The probability that a leap year will have 53 Fridays or 53 Saturdays is
(a) $\frac{2}{7}$ (b) $\frac{1}{7}$ (c) $\frac{4}{13}$ (d) $\frac{3}{7}$
- 2) The probability that a non-leap year will have 53 Sundays and 53 Mondays is
(a) $\frac{1}{7}$ (b) $\frac{2}{7}$ (c) $\frac{3}{7}$ (d) 0
- 3) The probability of selecting a queen of hearts when a card is drawn from a pack of 52 playing cards is
(a) $\frac{1}{32}$ (b) $\frac{16}{52}$ (c) $\frac{1}{13}$ (d) $\frac{1}{26}$
- 4) Probability of sure event is
(a) 1 (b) 0 (c) 100 (d) 0.1
- 5) The outcome of a random experiment results in either success or failure. If the probability of success is twice the probability of failure, then the probability of success is
(a) $\frac{1}{3}$ (b) $\frac{2}{3}$ (c) 1 (d) 0

Part-B

5 x 2 = 10

- 6) For a sightseeing trip, a tourist selects a country randomly from Argentina, Bangladesh, China, Angola, Russia and Algeria. What is the probability that the name of the selected country will begin with A?
- 7) A box contains 4 Green, 5 Blue and 3 Red balls. A ball is drawn at random. Find the probability that the selected ball is (i) Red in colour (ii) not Green in colour.
- 8) 20 cards are numbered from 1 to 20. One card is drawn at random. What is the probability that the number on the card is
(i) a multiple of 4 (ii) not a multiple of 6.
- 9) A two digit number is formed with the digits 3, 5 and 7. Find the probability that the number so formed is greater than 57 (repetition of digits is not allowed).
- 10) Three dice are thrown simultaneously. Find the probability of getting the same number on all the three dice.

Part-C

5 x 5 = 25

- 11) Two dice are rolled simultaneously. Find the probability that the sum of the numbers on the faces is neither divisible by 3 nor by 4.
- 12) A basket contains 20 apples and 10 oranges out of which 5 apples and 3 oranges are rotten. If a person takes out one fruit at random, find the probability that the fruit is either an apple or a good fruit.
- 13) In a class, 40% of the students participated in Mathematics-quiz, 30% in Science-quiz and 10% in both the quiz programmes. If a student is selected at random from the class, find the probability that the student participated in Mathematics or Science or both quiz programmes.
- 14) A card is drawn at random from a well-shuffled deck of 52 cards. Find the probability that it will be a spade or a king.
- 15) A box contains 10 white, 6 red and 10 black balls. A ball is drawn at random. Find the probability that the ball drawn is white or red.
