



Sri Raghavendra Tuition Center

Probability pre quaterly exam

10th Standard

Maths

Date : 17-09-24

Reg.No. :

Exam Time : 00:30 Hrs

Total Marks : 25

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Centum Book Available

I. Multiple Choice Question.

1 x 1 = 1

1) A page is selected at random from a book. The probability that the digit at units place of the page number chosen is less than 7 is

- (a) $\frac{3}{10}$ (b) $\frac{7}{10}$ (c) $\frac{3}{9}$ (d) $\frac{7}{9}$

II. Answer all two marks.

7 x 2 = 14

2) Two coins are tossed together. What is the probability of getting different faces on the coins?

3) What is the probability that a leap year selected at random will contain 53 saturdays. (Hint: $366 = 52 \times 7 + 2$)

4) Write the sample space for selecting two balls from a bag containing 6 balls numbered 1 to 6 (using tree diagram).

5) If $P(A) = 0.37$, $P(B) = 0.42$, $P(A \cap B) = 0.09$ then find $P(A \cup B)$.

6) If $P(A) = \frac{2}{3}$, $P(B) = \frac{2}{5}$, $P(A \cup B) = \frac{1}{3}$ then find $P(A \cap B)$.

7) A and B are two events such that, $P(A) = 0.42$, $P(B) = 0.48$, $P(A \cap B) = 0.16$. Find (i) $P(\text{not } A)$ (ii) $P(\text{not } B)$ (iii) $P(A \text{ or } B)$

8) If A and B are two mutually exclusive events of a random experiment and $P(\text{not } A) = 0.45$, $P(A \cup B) = 0.65$, then find $P(B)$.

III. Answer all five Marks

2 x 5 = 10

9) Two unbiased dice are rolled once. Find the probability of getting

- (i) a doublet (equal numbers on both dice)
 (ii) the product as a prime number
 (iii) the sum as a prime number
 (iv) the sum as 1

10) A bag contains 5 white and some black balls. If the probability of drawing a black ball from the bag is twice the probability of drawing a white ball then find the number of black balls.

All the best
