1. What is the theoretical probability of getting a head when a coin is tossed once?

   A. 1 B. 0

   C. 1/2 D. 2 (C)

Explanation : There are 2 equally likely outcomes: head and tail. Only 1 is favorable (head). So, P = 1/2.

2. How many outcomes are possible when a die is thrown once?

   A. 4 B. 5

   C. 6 D. 8 (C)

Explanation : A standard die has 6 faces numbered 1 to 6, giving 6 possible outcomes.

3. What is the probability of getting a number greater than 4 when a die is thrown once?

   A. 1/3 B. 1/6

   C. 1/2 D. 2/3 (A)

Explanation : Favorable outcomes: 5 and 6. Total outcomes: 6. So, P = 2/6 = 1/3.

4. What is the probability of an impossible event?

   A. 0 B. 1

   C. 0.5

   D. Cannot be determined (A)

Explanation : An impossible event has no favorable outcomes. So, its probability is 0.

5. If P(E) = 0.05, what is the value of P(not E)?

   A. 0.05 B. 0.5

   C. 0.95 D. 1.05 (C)

Explanation : P(not E) = 1 - P(E) = 1 - 0.05 = 0.95.

6. Which of the following is a sure event when a die is thrown?

   A. Getting a 7

   B. Getting a number < 7

   C. Getting a negative number

   D. Getting an even prime (B)

Explanation : All faces of a die are numbered 1 to 6. So, getting a number < 7 is certain.

7. What is the probability of getting a red ball from a bag with 4 red and 1 blue ball?

   A. 1/5 B. 4/5

   C. 2/5 D. 3/5 (B)

Explanation : Total outcomes = 5; favorable for red = 4. So, P = 4/5.

8. In a deck of 52 cards, how many are face cards?

   A. 16 B. 12

   C. 13 D. 10 (B)

Exlanation : There are 3 face cards (King, Queen, Jack) in each suit. So, total = 3 × 4 = 12.

9. If the probability of Sangeeta winning a match is 0.62, what is the probability of Reshma winning?

   A. 0.38 **B. 0.62**

   C. 0.5 **D. 1** **(A)**

Explanation : P(Reshma) = 1 - P(Sangeeta) = 1 - 0.62 = 0.38.

10. What is the sum of probabilities of all elementary events in an experiment?

    A. 1 B. 0

    C. Depends on outcomes

    D. Cannot be determined (A)

Explanation : The sum of all elementary event probabilities is always 1.