

## CHAPTER-14 | Probability

### QUIZ PART-03

1. Probability of an event E + Probability of the event "not E" is equal to:
- A. 0  
B. 1  
C. 2  
D. E (B)

*Explanation:* The sum of the probability of an event and its complement is always 1.

2. The probability of an event that cannot happen is:
- A. 1  
B.  $1/2$   
C. 0  
D. 2 (C)

*Explanation:* An impossible event has probability 0 because it can never occur.

3. Which of the following cannot be the probability of an event?
- A.  $2/3$   
B. -1.5  
C. 15%  
D. 0.7 (B)

*Explanation:* Probability always lies between 0 and 1, so a negative value cannot be a probability.

4. If  $P(E) = 0.05$ , then the probability of 'not E' is:
- A. 0.05  
B. 0.90  
C. 0.95  
D. 1.05 (C)

*Explanation:* The probability of not E is  $1 - 0.05 = 0.95$ .

5. A bag contains lemon flavoured candies only. What is the probability of taking out an orange flavoured candy?
- A. 0  
B. 1  
C.  $1/2$   
D.  $1/3$  (A)

*Explanation:* Since the bag has only lemon candies, getting an orange candy is impossible.

6. In a group of 2 students, the probability that they do not have the same birthday is 0.992. What is the probability that they have the same birthday?
- A. 0.008  
B. 0.992  
C. 0.08  
D. 0.02 (A)

*Explanation:* The probability of the same birthday is the complement of 0.992, so it is  $1 - 0.992 = 0.008$ .

7. A bag contains 3 red balls and 5 black balls. What is the probability of drawing a red ball?
- A.  $3/5$   
B.  $3/8$   
C.  $5/8$   
D.  $1/8$  (B)

*Explanation:* There are 8 balls in total and 3 of them are red, so the probability is  $3/8$ .

8. A box contains 5 red, 8 white and 4 green marbles. What is the probability of getting a white marble?
- A.  $8/17$   
B.  $5/17$   
C.  $4/17$   
D.  $9/17$  (A)

*Explanation:* Total marbles =  $5 + 8 + 4 = 17$ , and white marbles = 8, so the probability is  $8/17$ .

9. A spinner has numbers 1 to 8, all equally likely. What is the probability of getting an odd number?
- A.  $1/8$   
B.  $1/4$   
C.  $1/2$   
D.  $3/4$  (C)

*Explanation:* Odd numbers from 1 to 8 are 1, 3, 5, and 7, which are 4 outcomes out of 8. So the probability is  $4/8 = 1/2$ .

10. One card is drawn from a well-shuffled deck of 52 cards. What is the probability of getting a spade?
- A.  $1/2$   
B.  $1/4$   
C.  $1/13$   
D.  $13/52$  (B)

*Explanation:* There are 13 spade cards in a deck of 52 cards, so the probability is  $13/52 = 1/4$ .