Probability, Permutation and Combination

1. What is the probability of choosing two red ball from a bag which contain 3 blue and 5 yellow and 4 red balls.
(A) 1/11 **(B)** 3/110
(C) 5/11 **(D)** 2/11
(E) 4/11

2. There are 5 red, 6 black and 5 blue balls in a bag. Out of these balls, four balls are picked at random from the bag. Then, what is the probability that one is red, two are black and one is blue ball?
(A) 75/362 **(B)** 75/364
(C) 71/362 **(D)** 70/363
(E) 5/26

3. An urn contains 9 red, 7 white and 4 black balls. If two balls are drawn at random, find the probability that both the balls are red.
(A) 17/95 **(B)** 18/95
(C) 1/12 **(D)** 91/190
(E) None of these

4. In a simultaneous throw of two dice, find the probability of getting a sum of 6.
(A) 1/6 **(B)** 1/9
(C) 5/36 **(D)** 7/36
(E) 1/4

5. The probabilities of three persons A, B and C telling the truth about an event are 0.6, 0.4 and 0.5 respectively.
Quantity I: Probability of not more than one person telling a lie.
Quantity II: Probability of at least two persons lying with B being one of them.
(A) Quantity I > Quantity II
(B) Quantity I < Quantity II
(C) Quantity I ≥ Quantity II
(D) Quantity I ≤ Quantity II
(E) Quantity I = Quantity II or No relation

6. A question is given to Satish, Arun and Ayush. Probability that Satish, Arun and Ayush can solve the question is 1/3, 2/5 and 1/2. Find the probability that the question will be solved ?
(A) 3/5 **(B)** 4/5
(C) 1/5 **(D)** 1/3
(E) 2/5

7. A bag contains 5 red, 4 green and 6 yellow balls. If 3 balls are drawn at random then find the probability of obtaining no yellow ball.
(A) 33/91 **(B)** 12/65
(C) 4/91 **(D)** 24/119
(E) None of the above

8. What is probability of drawing 2 red balls from a bag containing 4 red, 5 yellow and some green balls such that green balls are twice the average of red and yellow color balls?
(A) 6/91 **(B)** 2/117
(C) 1/6 **(D)** 2/51
(E) 1/9

9. There are 3 red balls, 4 blue balls and 5 white balls. 2 balls are chosen randomly. Find probability that 1 is red and the other is white.
(A) 5/22 **(B)** 5/23
(C) 7/22 **(D)** 4/9
(E) None of these

10. A bag contains 27 cards with numbered (1, 2, 3… 27). Two cards are picked at random (one after another and without replacement). Find the probability that the sum of numbers of both cards are even.
(A) 13/27 **(B)** 12/27
(C) 15/27 **(D)** 14/27
(E) None of these

11. A bag contains 25 cards with numbered 1, 2, 3,……, 25. Two cards are picked at random (one after another and without replacement). Find the probability that the sum of numbers of both cards are odd?
(A) 12/50 **(B)** 13/25
(C) 13/50 **(D)** 13/27
(E) None of these

12. A bag certain 31 cards with numbered 1, 2, 3, ……., 31. Two cards are picked at random (one after another and without replacement). Find the probability that the sum of numbers of both cards are odd.
(A) 16/31 **(B)** 15/31
(C) 13/31 **(D)** 19/31
(E) None of these

13. There are 27 cards having number 1 to 27. Two cards are picked at random one by one. What is the probability that sum of number on these 2 cards is odd ?
(A) 13/27 **(B)** 8/13
(C) 182/729 **(D)** 14/27
(E) None of these

14. There are 3 baskets, each contains three apples and three oranges. Find the probability of selecting two oranges from the same basket?
(A) 1/6 **(B)** 1/3
(C) ¼ **(D)** 1/9
(E) 1/15

15. What is the probability of choosing a letter from word IMPORTANCE such that it never belongs to word PORTABILITY?
(A) 17/110 **(B)** 18/110
(C) 2/5 **(D)** 2/110
(E) 21/110

16. In a box there are seven honor 7x mobile and five one plus five mobiles. A man was asked to select two mobiles randomly. What is probability that man select at least one 'One plus five' mobile?
(A) 17/22 **(B)** 19/22
(C) 21/22 **(D)** 13/22
(E) 15/22

17. A box contains 'x' blue balls, 5 red and 5 black balls. If probability of choosing 2 blue balls from the bag is 0.125, then find the total number of balls in the box?
(A) 25 **(B)** 15
(C) 16 **(D)** 18
(E) 21

18. In a box there are 6 blue ball, X red balls & 10 green balls. Probability of choosing one red ball from the given box is 1/3.Then find the sum of red and blue balls in the box?
(A) 20 **(B)** 12
(C) 14 **(D)** 18
(E) 16

19. What is the probability of forming word from the letters of word "IMPEACH" such that all vowels come together?
(A) 8/35 **(B)** 1/7
(C) 3/35 **(D)** 17/35
(E) 2/7

20. There are 36 tickets numbered from 1 to 36. If two tickets are drawn at random without replacement one by one than find the probability that both tickets have a number which is multiple of 5 ?
(A) 1/40 **(B)** 1/48
(C) 1/28 **(D)** 1/30
(E) None of these