

1. The probability of a leap year selected at random contain 53 Sunday is:  
 (a)  $53/366$  (b)  $1/7$  (c)  $2/7$  (d)  $53/365$
2. A bag contains 3 red and 2 blue marbles. A marble is drawn at random. The probability of drawing a black ball is :  
 (a)  $3/5$  (b)  $2/5$  (c)  $0/5$  (d)  $1/5$
3. The probability that it will rain tomorrow is 0.85. What is the probability that it will not rain tomorrow  
 (a) 0.25 (b) 0.145 (c)  $3/20$  (d) none of these
4. What is the probability that a number selected from the numbers (1, 2, 3,.....,15) is a multiple of 4?  
 (a)  $1/5$  (b)  $4/5$  (c)  $2/15$  (d)  $1/3$
5. What are the total outcomes when we throw three coins?  
 (a) 4 (b) 5 (c) 8 (d) 7
6. The probability that a prime number selected at random from the numbers (1,2,3, .....35) is :  
 (a)  $12/35$  (b)  $11/35$  (c)  $13/35$  (d) none of these
7. The sum of the probability of an event and non event is :  
 (a) 2 (b) 1 (c) 0 (d) none of these.
8. The following probabilities are given; choose the correct answer for that which is not possible.  
 (a) 0.15 (b)  $2/7$  (c)  $7/5$  (d) none of these.
9. If three coins are tossed simultaneously, than the probability of getting at least two heads, is:  
 (a)  $1/4$  (b)  $3/8$  (c)  $\frac{1}{2}$  (d)  $1/8$
10. A letter is chosen at random from the letters of the word **◆ASSASSINATION◆**. The probability that the letter chosen has:  
 (a)  $6/13$  (b)  $7/13$  (c) 1 (d) none of these.
11. A dice is thrown. Find the probability of getting an even number.  
 (A)  $2/3$  (B) 1 (C)  $5/6$  (D)  $1/2$
12. Two coins are thrown at the same time. Find the probability of getting both heads.  
 (A)  $3/4$  (B)  $1/4$  (C)  $1/2$  (D) 0
13. Two dice are thrown simultaneously. The probability of getting a sum of 9 is:

22. Riya and Kajal are friends. Probability that both will have the same birthday is the same birthday is:

- (A)  $364/365$  (B)  $31/365$  (C)  $1/365$  (D)  $1/133225$

23. A number  $x$  is chosen at random from the numbers  $-2, -1, 0, 1, 2$ . Then the probability that  $x^2 < 2$  is?

- (A)  $1/5$  (B)  $2/5$  (C)  $3/5$  (D)  $4/5$

24. A jar contains 24 marbles. Some are red and others are white. If a marble is drawn at random from the jar, the probability that it is red is  $2/3$ , then the number of white marbles in the jar is:

- (A) 10 (B) 6 (C) 8 (D) 7

25. A number is selected at random from first 50 natural numbers. Then the probability that it is a multiple of 3 and 4 is:

- (A)  $7/50$  (B)  $4/25$  (C)  $1/25$  (D)  $2/25$

26. Consider a dice with the property that that probability of a face with  $n$  dots showing up is proportional to  $n$ . The probability of face showing 4 dots is?

- a)  $\frac{1}{7}$  b)  $\frac{5}{42}$  c)  $\frac{1}{21}$  d)  $\frac{4}{21}$

27. Runs scored by batsman in 5 one day matches are 50, 70, 82, 93, and 20. The standard deviation is \_\_\_\_\_.

- a) 25.79 b) 25.49 c) 25.29 d) 25.69

28. Find median and mode of the messages received on 9 consecutive days 15, 11, 9, 5, 18, 4, 18, 13, 17.

- a) 13, 15 b) 13, 18 c) 18, 15 d) 13, 16

29. A coin is tossed up 4 times. The probability that tails turn up in 3 cases is \_\_\_\_\_.

- a)  $1/2$  b)  $1/3$  c)  $1/4$  d)  $1/6$

30.  $X$  is a variate between 0 and 3. The value of  $E(X^2)$  is \_\_\_\_\_.

- a) 8 b) 7 c) 27 d) 9

31. The random variables  $X$  and  $Y$  have variances 0.2 and 0.5 respectively. Let  $Z = 5X - 2Y$ . The variance of  $Z$  is?