

## **PROBABILITY**

1. The probability that a number selected at random from the first 50 natural numbers is a composite number is -  
A.  $\frac{21}{25}$       B.  $\frac{17}{25}$       C.  $\frac{4}{25}$       D.  $\frac{8}{25}$
2. A coin is tossed live times. What is the probability that there is at the least one tail?  
A.  $\frac{31}{32}$     B.  $\frac{1}{16}$     C.  $\frac{1}{2}$     D.  $\frac{1}{32}$
3. If a number is chosen at random from the set  $\{1, 2, 3, \dots, 100\}$ , then the probability that the chosen number is a perfect cube is –  
A.  $\frac{1}{25}$  B.  $\frac{1}{2}$     C.  $\frac{4}{13}$     D.  $\frac{1}{10}$
4. Out of first 20 natural numbers, one number is selected at random. The probability that it is either an even number or a prime number is -  
A.  $\frac{1}{2}$     B.  $\frac{16}{19}$       C.  $\frac{4}{5}$     D.  $\frac{17}{20}$
5. If two dice are thrown together, the probability of getting an even number on one die and an odd number on the other is –  
A.  $\frac{1}{4}$     B.  $\frac{1}{2}$     C.  $\frac{3}{4}$     D.  $\frac{3}{5}$
6. If four coins are tossed, the probability of getting two heads and two tails is –  
A.  $\frac{3}{8}$     B.  $\frac{6}{11}$     C.  $\frac{2}{5}$     D.  $\frac{4}{5}$
7. If a card is drawn from a well shuffled pack of cards, the probability of drawing a spade or a king is –  
A.  $\frac{19}{52}$       B.  $\frac{17}{52}$       C.  $\frac{5}{13}$       D.  $\frac{4}{13}$
8. What is the probability of getting a doublet when two unbiased dices are thrown simultaneously?  
**(HDFC)**  
A.  $\frac{1}{3}$     B.  $\frac{1}{6}$     C.  $\frac{1}{4}$     D.  $\frac{2}{3}$
9. A bag contains 7 green and 8 white balls. If two balls are drawn simultaneously, the probability that both are of the same color is –  
A.  $\frac{8}{15}$     B.  $\frac{2}{5}$     C.  $\frac{3}{5}$     D.  $\frac{7}{15}$
10. A basket has 5 apples and 4 oranges. Three fruits are picked at random. The probability that at least 2 apples are picked is –  
A.  $\frac{25}{42}$       B.  $\frac{9}{20}$     C.  $\frac{10}{23}$       D.  $\frac{41}{42}$

11. Three 6 faced dice are thrown together. The probability that all the three show the same number on them is –

A.  $\frac{1}{216}$     B.  $\frac{1}{36}$     C.  $\frac{5}{9}$     D.  $\frac{5}{12}$

12. Three 6 faced dice are thrown together. The probability that no two dice show the same number on them is –

A.  $\frac{7}{12}$     B.  $\frac{5}{9}$     C.  $\frac{1}{36}$     D.  $\frac{5}{12}$

13. In an urn there are 4 red balls and 3 blue balls. If two balls are drawn at random, find the probability that none is red.(**AXIS**)

A.  $\frac{2}{7}$     B.  $\frac{4}{7}$     C.  $\frac{1}{7}$     D.  $\frac{3}{7}$

14. A box contains nine bulbs out of which 4 are defective. If four bulbs are chosen at random, find the probability that all the four bulbs are defective.

A.  $\frac{62}{63}$     B.  $\frac{125}{126}$     C.  $\frac{1}{63}$     D.  $\frac{1}{126}$

15. A box contains nine bulbs out of which 4 are defective. If four bulbs are chosen at random, find the probability that exactly three bulbs are good.

A.  $\frac{20}{31}$     B.  $\frac{20}{63}$     C.  $\frac{5}{31}$     D.  $\frac{6}{31}$

16. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If four marbles are picked at random, what is the probability that none is blue?

A.  $\frac{17}{91}$     B.  $\frac{33}{91}$     C.  $\frac{51}{91}$     D.  $\frac{65}{91}$

17. What is the probability that a card drawn at random from a pack of 52 cards is either a King or a Spade?(**ICICI**)

A.  $\frac{17}{52}$     B.  $\frac{4}{13}$     C.  $\frac{3}{13}$     D.  $\frac{13}{52}$

18. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If three marbles are picked at random, what is the probability that they are all blue?

A.  $\frac{1}{455}$     B.  $\frac{2}{455}$     C.  $\frac{1}{91}$     D.  $\frac{4}{455}$

19. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If two marbles are picked at random, what is the probability that they are either blue or yellow?

A.  $\frac{3}{22}$     B.  $\frac{4}{21}$     C.  $\frac{2}{21}$     D.  $\frac{1}{14}$

20. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If two marbles are drawn at random, what is the probability that at least one is green?

A.  $\frac{23}{35}$       B.  $\frac{29}{35}$       C.  $\frac{47}{70}$       D.  $\frac{43}{70}$

21. A box contains 3 blue marbles, 4 red, 6 green marbles and 2 yellow marbles. If three marbles are drawn what is the probability that one is yellow and two are red?

A.  $\frac{24}{455}$       B.  $\frac{3}{91}$       C.  $\frac{12}{455}$       D.  $\frac{15}{91}$

22. A bag contains five white and four red balls. Two balls are picked at random from the bag. What is the probability that they both are different color?

A.  $\frac{4}{9}$       B.  $\frac{5}{9}$       C.  $\frac{7}{9}$       D.  $\frac{8}{9}$

23. Out of 15 consecutive numbers, 2 are chosen at random. The probability that they are both odds or both primes is –

A.  $\frac{10}{17}$       B.  $\frac{10}{19}$       C.  $\frac{46}{105}$       D. can't be determined

24. What is the probability that a leap year has 53 Sundays and 52 Mondays?

A. 0      B.  $\frac{1}{7}$       C.  $\frac{2}{7}$       D.  $\frac{5}{7}$

25. An urn contains 9 blue, 7 white and 4 black balls. If 2 balls are drawn at random, then what is the probability that only one ball is white?(HDFC )

A.  $\frac{71}{190}$       B.  $\frac{121}{190}$       C.  $\frac{91}{190}$       D.  $\frac{93}{190}$

26. The probability of a lottery ticket being a prized ticket is 0.2. When 4 tickets are purchased, the probability of winning a prize on at least one ticket is –

A. 0.4869      B. 0.5904      C. 0.6234      D. 0.5834

27. In a party there are 5 couples. Out of them 5 people are chosen at random. Find the probability that there are at the least two couples?

A.  $\frac{5}{21}$       B.  $\frac{5}{14}$       C.  $\frac{9}{14}$       D.  $\frac{16}{21}$

28. The probability that A speaks truth is  $\frac{3}{5}$  and that of B speaking truth is  $\frac{4}{7}$ . What is the probability that they agree in stating the same fact?

A.  $\frac{18}{35}$       B.  $\frac{12}{35}$       C.  $\frac{17}{35}$       D.  $\frac{19}{35}$

29. Out of 10 persons working on a project, 4 are graduates. If 3 are selected, what is the probability that there is at least one graduate among them?

A.  $\frac{1}{6}$       B.  $\frac{5}{8}$       C.  $\frac{3}{8}$       D.  $\frac{5}{6}$

30. An urn contains 3 red and 4 green marbles. If three marbles are picked at random. What is

The probability that two are green and one is red?(AMCAT )

A.  $\frac{3}{7}$  B.  $\frac{18}{35}$  C.  $\frac{5}{14}$  D.  $\frac{4}{21}$

31. A problem is given to three students whose chances of solving it are  $\frac{1}{2}$ ,  $\frac{1}{3}$  and  $\frac{1}{4}$  respectively. What is the probability that the problem will be solved?

A.  $\frac{1}{4}$  B.  $\frac{1}{2}$  C.  $\frac{3}{4}$  D.  $\frac{7}{12}$

32. Two cards are drawn at random from a pack of 52 cards. What is the probability that either both are black or both are queen?

A.  $\frac{52}{221}$  B.  $\frac{55}{190}$  C.  $\frac{55}{221}$  D.  $\frac{19}{221}$

33. A man and his wife appear in an interview for two vacancies in the same post. The probability of husband's selection is  $\frac{1}{7}$  and the probability of wife's selection is  $\frac{1}{5}$ . What is the probability that only one of them is selected?

A.  $\frac{2}{7}$  B.  $\frac{1}{7}$  C.  $\frac{3}{4}$  D.  $\frac{4}{5}$

34. In a lottery, there are 10 prizes and 25 blanks. A lottery is drawn at random. What is the probability of getting a prize?

A.  $\frac{2}{7}$  B.  $\frac{5}{7}$  C.  $\frac{1}{5}$  D.  $\frac{1}{2}$

35. A bag contains 2 red, 3 green and 2 blue balls. 2 balls are to be drawn' randomly, What is the probability that the balls drawn contain no blue ball? (**AMCAT**)

A.  $\frac{5}{7}$  B.  $\frac{10}{21}$  C.  $\frac{2}{7}$  D.  $\frac{11}{21}$

36. Tickets numbered 1 to 50 are mixed and one ticket is drawn at random. Find the probability that the ticket drawn has a number which is a multiple of 4 or 7?

A.  $\frac{9}{25}$  B.  $\frac{9}{50}$  C.  $\frac{18}{25}$  D) None of these

37. From a pack of 52 cards, one card is drawn at random. Find the probability that the drawn card is a club or a jack?

A.  $\frac{17}{52}$  B.  $\frac{8}{13}$  C.  $\frac{4}{13}$  D.  $\frac{1}{13}$

38. Two friends A and B apply for a job in the same company. The chances of A getting selected is  $\frac{2}{5}$  and that of B is  $\frac{4}{7}$ . What is the probability that both of them get selected?

A.  $\frac{8}{35}$  B.  $\frac{34}{35}$  C.  $\frac{27}{35}$  D. None of these

39. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5?

A.  $\frac{1}{2}$  B.  $\frac{3}{5}$  C.  $\frac{9}{20}$  D.  $\frac{8}{15}$

40. A bag contains 4 white, 5 red and 6 blue balls. Three balls are drawn at random from the bag. The probability that all of them are red, is:

A.  $\frac{2}{91}$  B.  $\frac{1}{22}$  C.  $\frac{3}{22}$  D.  $\frac{2}{77}$

41. A card is drawn at random from a well-shuffled pack of 52 cards. What is the probability of getting a two of hearts or a two of diamonds? **(AMCAT)**

A.  $\frac{3}{26}$  B.  $\frac{2}{17}$  C.  $\frac{14}{26}$  D.  $\frac{4}{13}$

42. What is the probability of getting 53 Mondays in a leap year?

A.  $\frac{1}{7}$  B.  $\frac{3}{7}$  C.  $\frac{2}{7}$  D. 1

43. Two dice are thrown together. What is the probability that the sum of the number on the two faces is divided by 4 or 6.

A.  $\frac{7}{18}$  B.  $\frac{14}{35}$  C.  $\frac{8}{18}$  D.  $\frac{7}{35}$

44. In a class, there are 15 boys and 10 girls. Three students are selected at random. The probability that 1 girl and 2 boys are selected is:

A.  $\frac{21}{46}$  B.  $\frac{1}{5}$  C.  $\frac{3}{25}$  D.  $\frac{1}{50}$

45. In a container there are 28 eggs out of which 8 eggs are rotten. If two eggs are chosen at random, what will be the probability that at least one egg is rotten? **(ELITMUS)**

A.  $\frac{94}{189}$  B.  $\frac{93}{189}$  C.  $\frac{95}{187}$  D.  $\frac{97}{189}$

46. A bag contains 6 black and 8 white balls. One ball is drawn at random. What is the probability that the ball drawn is white?

A.  $\frac{3}{7}$  B.  $\frac{4}{7}$  C.  $\frac{1}{8}$  D.  $\frac{3}{4}$

47. If two letters are taken at random from the word HOME, what is the probability that none of the letters would be vowels?

A.  $\frac{1}{6}$  B.  $\frac{1}{2}$  C.  $\frac{1}{3}$  D.  $\frac{1}{4}$

48. A speaks truth in 75% of cases and B in 80% of cases. In what percentage of cases are they likely to contradict each other, narrating the same incident?

A.  $\frac{30}{100}$  B.  $\frac{35}{100}$  C.  $\frac{45}{100}$  D.  $\frac{50}{100}$

49. A bag contains 50 tickets numbered 1,2,3,4.....50 of which five are drawn at random and arranged in ascending order of magnitude. Find the probability that third drawn ticket is equal to 30.

A.  $\frac{551}{15134}$  B.  $\frac{1}{2}$  C.  $\frac{552}{15379}$  D.  $\frac{1}{9}$

50. A basket contains 10 apples and 20 oranges out of which 3 apples and 5 oranges are defective. If we choose two fruits at random, what is the probability that either both are oranges or both are non-defective?

A.  $136/345$     B.  $17/87$     C.  $316/435$     D.  $158/435$

51. In a simultaneous throw of pair of dice. Find the probability of getting the total more than 7.

A.  $1/2$     B.  $5/12$     C.  $7/15$     D.  $3/12$

52. A word consists of 9 letters; 5 consonants and 4 vowels. Three letters are chosen at random. What is the probability that more than one vowel will be selected?

A.  $13/42$     B.  $17/42$     C.  $5/42$     D.  $3/14$

53. Two dice are thrown simultaneously. What is the probability of getting two numbers whose product is even?

A.  $3/4$     B.  $3/8$     C.  $5/16$     D.  $2/7$

54. A basket contains 6 red, 5 green, and 8 blue balls. If four balls are picked at random. What is the probability that all four of them are either red or any two out of the four, are green? (**ELITMUS**)

A.  $5/1292$     B.  $925/3876$     C.  $359/1938$     D.  $11/3876$

55. In a box, there are 8 red, 7 blue and 6 green balls. One ball is picked up randomly. What is the probability that it is neither red nor green?

A.  $1/3$     B.  $3/5$     C.  $8/21$     D.  $7/21$

56. There are two urns, one containing two white balls and four black balls, the other containing three white balls and nine black balls. One ball each is drawn out of the two urns. What is the probability of getting two balls of the same colour? (**AMCAT**)

A.  $7/12$     B.  $1/24$     C.  $1/12$     D.  $1/2$

57. An urn contains 4 white 6 black and 8 red balls. If 3 balls are drawn one by one without replacement, find the probability of getting all white balls.

A.  $5/204$     B.  $1/204$     C.  $13/204$     D. None of these

58. An unbiased die is tossed. Find the probability of getting a multiple of 3.

A.  $1/3$     B.  $1/2$     C.  $3/4$     D.  $3/2$

59. Three unbiased coins are tossed. What is the probability of getting at most two heads?

A.  $3/4$     B.  $7/8$     C.  $1/2$     D.  $1/4$

60. I forgot the last digit of a 7-digit telephone number. If I randomly dial the final 3 digits after correctly dialing the first four, then what is the chance of dialing the correct number?

- A.  $\frac{1}{999}$       B.  $\frac{1}{1001}$       C.  $\frac{1}{1000}$       D.  $\frac{4}{1000}$

ANSWER KEY	
QUESTIONS	ANSWERS
1	B
2	A
3	A
4	D
5	B
6	A
7	D
8	B
9	D
10	A
11	B
12	B
13	C
14	D
15	B
16	B
17	B
18	A

19	C
20	A
21	C
22	B
23	D
24	B
25	C
26	B
27	A
28	A
29	D
30	B
31	C
32	C
33	A
34	A
35	B
36	A
37	C
38	A
39	C
40	A
41	B
42	C



43	A
44	A
45	A
46	B
47	A
48	B
49	A
50	C
51	B
52	B
53	A
54	A
55	A
56	A
57	B
58	A
59	B
60	C