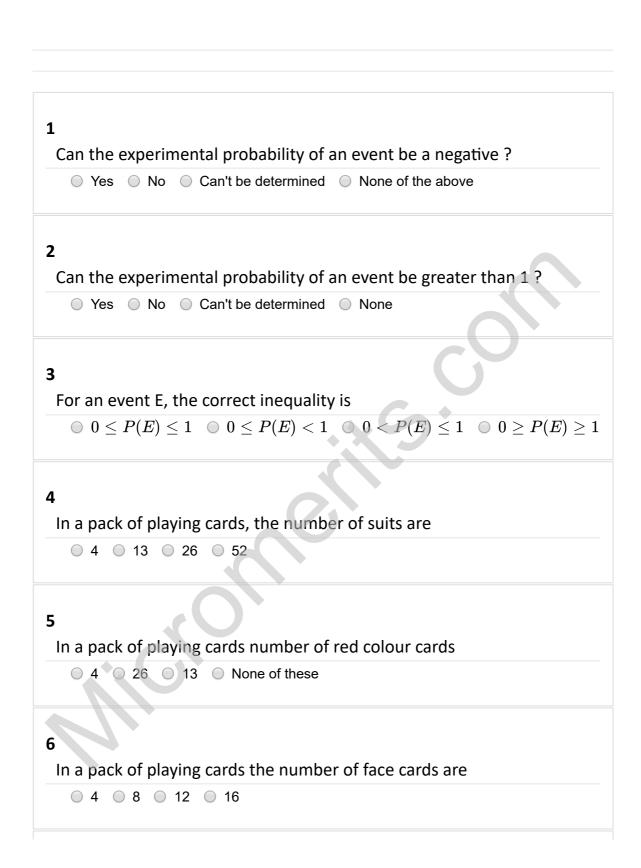IITJEE Foundation Practice paper

PROBABILITY

class-8-Mathematics   Number of Questions: 40

For Answers and Solutions, Go to www.micromerits.com

1

Can the experimental probability of an event be a negative ?

○ Yes   ○ No   ○ Can't be determined   ○ None of the above

2

Can the experimental probability of an event be greater than 1 ?

○ Yes   ○ No   ○ Can't be determined   ○ None

3

For an event E, the correct inequality is

○ $0 \leq P(E) \leq 1$ ○ $0 \leq P(E) < 1$ ○ $0 < P(E) \leq 1$ ○ $0 \geq P(E) \geq 1$

4

In a pack of playing cards, the number of suits are

○ 4   ○ 13   ○ 26   ○ 52

5

In a pack of playing cards number of red colour cards

○ 4   ○ 26   ○ 13   ○ None of these

6

In a pack of playing cards the number of face cards are

○ 4   ○ 8   ○ 12   ○ 16

7

If P(E') = $\frac{1}{6}$, then P(E) is given by

○ $\frac{7}{6}$ ○ $\frac{5}{6}$ ○ $\frac{2}{6}$ ○ $\frac{1}{6}$

8

If P(E') = $\frac{2}{9}$, then P(E) is given by

○ $\frac{2}{9}$ ○ $\frac{5}{9}$ ○ $\frac{7}{9}$ ○ $\frac{8}{9}$

9

If P(E') = $\frac{1}{9}$, then P(E) is given by

○ $\frac{5}{9}$ ○ $\frac{8}{9}$ ○ $\frac{7}{9}$ ○ 1

10

Which of the following can't be the probability of an event.

○ 0.125 ○ 0.31 ○ $\frac{5}{9}$ ○ $\sqrt{5}$

11

When a coin is tossed once find the probability of getting a head.

○ 0.275 ○ 0.55 ○ $\frac{1}{2}$ ○ $\frac{1}{4}$

12

When a coin is tossed once find the probability of getting a tail.

○ 0.25 ○ 0.50 ○ 0.75 ○ 1

13

A coin is tossed 100 times with the following frequencies :

Head = 45 ; Tail = 55

Then the probability of getting head is

○ 4.5 ○ 45 ○ 0.45 ○ 0.55

14

A coin is tossed 100 times with the following frequencies :

Head = 45 ; Tail = 55

Then the probability of getting tail is

○ 0.45　○ 0.55　○ 55　○ 45

15

When a die is thrown once then , find the probability of getting a number between 3 and 6.

○ $\frac{4}{6}$　○ $\frac{2}{6}$　○ $\frac{3}{6}$　○ $\frac{5}{6}$

16

When a die is thrown once find the probability of getting an even prime number.

○ $\frac{2}{6}$　○ $\frac{1}{6}$　○ $\frac{5}{6}$　○ $\frac{4}{6}$

17

When a die is thrown once find the probability of getting an even number.

○ 0.45　○ 0.55　○ 0.65　○ 0.50

18

When a die is thrown once find the probability of getting an odd number.

○ 0.45　○ 0.55　○ 0.50　○ 0.65

19

When a die is thrown once find the probability of getting a number greater than 4.

○ $\frac{1}{3}$　○ $\frac{2}{3}$　○ $\frac{3}{3}$　○ 0

20

If the probability of winning a game is 0.3, then find the probability of losing the game.

○ 0.70 ○ 0.75 ○ 0.30 ○ 0.60

21

If the probability of winning a game is $\frac{1}{7}$, then find the probability of losing the game.

○ $\frac{1}{7}$ ○ $\frac{2}{7}$ ○ $\frac{6}{7}$ ○ $\frac{3}{7}$

22

A bag contain 3 red balls and 7 blue balls . If a ball is drawn randomly from the bag then find the probability that the drawn ball is blue in color.

○ 0.60 ○ 0.30 ○ 0.70 ○ 0.80

23

A fair coin is tossed 1000 times with the following frequencies
Head : 507 , Tail : 493
Find the probability of getting head when the coin is tossed.

○ 0.500 ○ 0.507 ○ 0.504 ○ 0.497

24

A fair coin is tossed 1000 times with the following frequencies
Head : 507 , Tail : 493
Find the probability of getting tail when the coin is tossed.

○ 0.497 ○ 0.507 ○ 0.493 ○ 0.4

25

Cards numbered from 1 to 100 are placed in a box and mixed thoroughly and One card is drawn from this box . Find the probability that the number on the card drawn is a number less than 14.

○ 0.11 ○ 0.12 ○ 0.13 ○ 0.14

26

In a survey of 364 children aged 19 – 36 months, it was found that 91 liked to eat potato chips. If a child is selected at random, then the probability that she/he like to eat potato chips ?

$\bigcirc$ $\dfrac{91}{384}$ $\bigcirc$ $\dfrac{273}{364}$ $\bigcirc$ $\dfrac{91}{364}$ $\bigcirc$ 0.65

27

A die is rolled 250 times and the frequencies of the outcomes 1 , 2 , 3 , 4 , 5 and 6 are recorded below :

1 → 65,

2 → 40,

3 → 42,

4 → 25,

5 → 33,

6 → 45.

When a die is thrown at random , then find the probability of getting 2.

$\bigcirc$ 0.15 $\bigcirc$ 0.16 $\bigcirc$ 0.17 $\bigcirc$ 0.18

28

What is the probability of getting a "non-king" card from a deck of 52 playing cards ?

$\bigcirc$ $\dfrac{1}{13}$ $\bigcirc$ $\dfrac{12}{13}$ $\bigcirc$ $\dfrac{11}{13}$ $\bigcirc$ $\dfrac{3}{13}$

29

If a card is drawn from a well-shuffled deck of 52 playing cards, then the probability of getting a black ace is

$\bigcirc$ $\dfrac{1}{26}$ $\bigcirc$ $\dfrac{1}{13}$ $\bigcirc$ $\dfrac{3}{26}$ $\bigcirc$ $\dfrac{1}{52}$

30

If two coins are tossed simultaneously, then all the possible outcomes are

$\bigcirc$ HH, TT $\bigcirc$ HH, TH, TT $\bigcirc$ HT, TH $\bigcirc$ HH, HT, TH, TT

31

If five coins are tossed at a time, then the total number of outcomes is equal to

$\bigcirc$ 5 $\bigcirc$ 10 $\bigcirc$ 32 $\bigcirc$ 50

32

If three coins are tossed at a time, then the probability that head will appear on all the coins is

○ $\dfrac{1}{2}$ ○ $\dfrac{1}{8}$ ○ $\dfrac{3}{8}$ ○ $\dfrac{7}{8}$

33

The difference between the possible number of outcomes when 10 coins are tossed simultaneously and when 7 coins are tossed simultaneously is

○ 768 ○ 442 ○ 772 ○ 896

34

Out of the numbers 1, 2, 3, 4, 5, 6, 7 and 8, the probability of getting a non - prime number is

○ $\dfrac{1}{2}$ ○ $\dfrac{5}{8}$ ○ $\dfrac{7}{8}$ ○ 0

35

If there are 10 bananas and 5 mangoes in the basket, then the probability of drawing a mango is

○ $\dfrac{1}{5}$ ○ $\dfrac{1}{3}$ ○ $\dfrac{1}{10}$ ○ $\dfrac{1}{15}$

36

Out of 1, 2, 3, 4, 5, 6, 7, 8 and 9, the probability of getting an even number is

○ $\dfrac{1}{9}$ ○ $\dfrac{2}{9}$ ○ $\dfrac{3}{9}$ ○ $\dfrac{4}{9}$

37

A ball is drawn at random from the box containing 7 red balls, 8 white balls, 6 green balls. The probability that the ball drawn is not green is

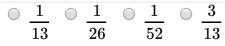○ $\dfrac{6}{21}$ ○ $\dfrac{3}{7}$ ○ $\dfrac{13}{21}$ ○ $\dfrac{5}{7}$

38

Out of 1, 2, 3, 4, ... 20 numbers, one number is chosen at random. The probability that it will be divisible by 5 is

○ $\dfrac{1}{2}$ ○ $\dfrac{1}{3}$ ○ $\dfrac{1}{4}$ ○ $\dfrac{1}{5}$

39

From a pack of cards, one card is drawn at random. The probability of getting a queen card is

○ $\dfrac{1}{13}$ ○ $\dfrac{1}{26}$ ○ $\dfrac{1}{52}$ ○ $\dfrac{3}{13}$

40

What is the probability of getting a "non-face" card from a deck of 52 playing cards ?

○ $\dfrac{10}{13}$ ○ $\dfrac{11}{13}$ ○ $\dfrac{12}{13}$ ○ $\dfrac{9}{13}$