

**Class: 9**  
**Subject: Mathematics**  
**Topic: Probability**  
**No. of Questions: 20**

- Q1. Usha draws one card from a shuffled deck of 52 cards. What is the probability that she drew a club or a Queen?
- Q2. From among a group of 2 men, 5 women and 4 children, 4 individuals are selected randomly. What is the probability that exactly 2 among the chosen are children?
- Q3. Priyanka is participating in a race. The probability that she will come first in the race is 0.25. The probability she will come second in the race is 0.1. The probability that she will come in 3<sup>rd</sup> is 0.5, and the probability that she will be 4<sup>th</sup> is 0.15. What is the probability that she will win 2<sup>nd</sup> position or better in the race?
- (a) 0.25  
(b) 0.45  
(c) 0.4  
(d) 0.35
- Q4. Two dice are rolled. What is the probability that two numbers add up to a prime number?
- (a)  $\frac{15}{36}$   
(b)  $\frac{7}{36}$   
(c)  $\frac{12}{36}$   
(d)  $\frac{20}{36}$
- Q5. Archana draws 4 cards out of a deck of 52 cards. What is the probability that she draws a King, a Jack, a 4 and a Queen?
- (a)  $\frac{64}{270725}$   
(b)  $\frac{3}{52}$   
(c)  $\frac{256}{270725}$   
(d)  $\frac{256}{22100}$

- Q6. The Letters of the Word MATHEMATICS are rearranged in a random order. What is the probability that the letters have exactly 3 letters between them?
- (a)  $\frac{19}{120}$   
(b)  $\frac{16}{110}$   
(c)  $\frac{19}{105}$   
(d)  $\frac{14}{110}$
- Q7. What is the probability that an integer in the set 1, 2, 3...86 is divisible by 2 and not divisible by 3?
- (a)  $\frac{32}{83}$   
(b)  $\frac{27}{88}$   
(c)  $\frac{29}{86}$   
(d)  $\frac{30}{89}$
- Q8. A coin is tossed 50 times with 17 head. Find the probability of getting a tail.
- Q9. Find the probability of drawing a jack or an ace from a pack of playing cards.
- Q10. A coin is tossed twice. What is the probability that head will appear twice?
- Q11. Probability of an event can be
- (a) -0.7  
(b)  $\frac{11}{9}$   
(c) 1.001  
(d) 0.6
- Q12. A coin is tossed 40 times and it showed tail 24 times. The probability of getting a head was
- (a)  $\frac{2}{5}$   
(b)  $\frac{3}{5}$   
(c)  $\frac{1}{2}$   
(d)  $\frac{17}{40}$

- Q13. A bag contains 10 balls, out of which 4 balls are white and the others are non-white. The probability of getting a non-white ball is
- (a)  $\frac{2}{5}$
  - (b)  $\frac{3}{5}$
  - (c)  $\frac{1}{2}$
  - (d)  $\frac{2}{3}$
- Q14. If E is an event, then
- (a)  $0 < P(E) < 1$
  - (b)  $0 \leq P(E) < 1$
  - (c)  $0 \leq P(E) \leq 1$
  - (d)  $0 < P(E) \leq 1$
- Q15. The probability of happening of an event is 37%. Then probability of the event is
- (a) 37
  - (b) 0.037
  - (c) 3.7
  - (d) 0.37
- Q16. If a coin was tossed 100 times, out of which 65 times we got head and 35 times tail. Then the probability of not getting a tail is
- (a) 6.5
  - (b) 7.5
  - (c) 65
  - (d) 35
- Q17. Two dice are rolled simultaneously. Find the probability that they show different faces.
- (a)  $\frac{6}{5}$
  - (b)  $\frac{1}{6}$
  - (c)  $\frac{1}{3}$
  - (d)  $\frac{5}{6}$
- Q18. A bag contains 12 pencils, 3 sharpeners and 7 pens. If we take out one item from the bag at random, probability of drawing a pencil is

Directions: Each of these questions contains an Assertion followed by reason. Read them carefully and answer the question on the basis of following options. You have to select the one that best describes the two statements.

- (a) If both Assertion and Reason are correct and Reason is the correct explanation of Assertion.
- (b) If both Assertion and Reason are correct, but Reason is not the correct explanation of Assertion.
- (c) If Assertion is correct but Reason is incorrect.
- (d) If Assertion is incorrect but Reason is correct.

Q19. Assertion: In class there are  $x$  boys and  $y$  girls, A student is selected at random, then the probability of selecting a girl is  $\frac{y}{x}$

Reason: Probability of an event  $E$  of an experiment is ratio of the number of trials in which event  $E$  has happened to the total number of trials.

Q20. Assertion: Tossing a coin 50 times is called an event.

Reason: The possible outcomes of an experiment are called events.