Q.23 A game of chance consists of spinning arrow which comes to rest pointing at one of the number 1,2,3,4,5,6,7,8 and these are equally likely outcomes. What is the probability that it will point at (i) 8 ? (ii) and odd number ? (iii) a number greater than 2 ? (iv) a number less than 9 ?

Q.24 A game consists of tossing a one rupee coin 3 times and nothing its outcome each time. Hanif wins if all the tosses give the same result i.e. three heads or three tails, and loses otherwise Calculate the probability that Hanif will lose the game.

Q.25 Three unbiased coins are tossed togethere.Find the probability of getting :

(i) all heads (ii) two heads

(iii) one head (iv) at least two heads

Q.26 A card is drawn at random from a pack of 52 cards. Find the probability that the card drawn is :

(i) a black king (ii) either a black card or a king

(iii) black and king (iv) a jack, queen or a king

(v) neither a heart nor a king (vi) spade or an ace

(vii) neither an ace nor a king (viii) neither a red card nor a queen.

(ix) other than an ace (x) a ten

(xi) a spade (xii) a black card

(xiii) the seven of clubs (xiv) jack

(xv) the ace of spades (xvi) a queen

(xvii) a heart (xviii) a red card

Q.27 What is the probability that an ordinary year has 53 Sundays ?

Q.29 A bag contains 3 red balls, 5 black balls and 4 white balls. A ball is drawn at random from the bag. What is the probability that the ball drawn is:

(i) white ? (ii) red ? (iii) black ? (iv) not red?

Q.30 One card is drawn from a well shuffled deck of 52 cards. Find the probability of getting :

(i) a king of red suit (ii) a face card

(iii) a red face card (iv) a queen of black suit

(v) a jack of hearts (vi) a spade

ANIL TUTORIALS





Q.1 An unbiased die is thrown. What is the probabilty of getting :

(i) an even number (ii) a multiple of 3

(iii) an even mumber or a multiple of 3

(iv) an even number and a multiple of 3.

(v) a number 3 or 4 (vi) an odd number

(vii) a number less than 5 (viii) a number greater than 3

(xi) a number between 3 and 6

Q.2 Two unbiased coins are tossed simultaneously. Find the probability of getting.

(i) two heads (ii) one head (iii) one tail

(iv) at least one head (v) at most one head. (vi) no head

Q.3 Two dice are thrown simultaneously. Find the probability of getting :

(i) an even number as the sum (ii) the sum as a prime number

(iii) a total of at least 10 (iv) a doublet of even number

(v) a multiple of 2 on one dice and a multiple of 3 on the other.

(vi) same number on both dice i.e. a boublet.

(vii) a multiple of 3 as the sum.

Q.4 The probability that it will rain tomorrow is 0.85. What is the probability that it will not rain tommorrow?

Q.5 A die is trhown. Find the probability of getting.

(i) a prime number (ii) 2 or 4

(iii) a multiple of 2 or 3 (iv) an even prime number

(v) a number greater than 5

(vi) a number lying between 2 and 6

Q.6 In a simultaneous throw of a pair of dice, find the probability of getting :

(i) 8 as the sum (ii) a doublet

(iii) a doublet of prime numbers (iv) a doublet of odd numbers

(v) a sum greater than 9 (vi) an even number on first

(vii) an even number on one and a multiple of 3 on other.

ANIL TUTORIALS

(viii) neither 9 nor 11 as the sum of the numbers on the faces.

(ix) a sum less than 6 (x) a sum less than 7

(xi) a sum more than 7 (xii) at least once

(xiii) a number other than 5 on any dice.

Q.7 Tickets numbered from 1 to 20 are mixed up together and then a ticket is drown at random. What is the probabilty that the ticket has a number which is a multiple of 3 or 7 ?

Q.8 In a lottery of 50 tickets numbered 1 to 50, one ticket is drawn. Find the pobability that the drawn ticket bears a prime number.

Q.9 A bag contains 3 red and 2 blue marbles. A marble is drawn at random. What is the probability of drawing a blue marble ?

Q.10 A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball is double that of a red ball, find the number of blue balls in the bag.

Q.11 A bag contains 12 balls out of which x are white.

(i) If one ball is drawn at random, what is the probability that it will be a white ball ?

(ii) If 6 more white balls are put in the bag, the probability of drawing a white ball will be double than that in (i) Find x.

Q.12 17 cards numbered 1,2,3.....,17 are put in a box and mixed thoroughly. One person draws a card from the box. Find the probability that the number on the card is:

(i) odd (ii) a prime

(iii) divisible by 3 (iv) divisible by 3 and 2both

Q.13 A bag contains lemon flavoured candies only. Malini takes out one candy without looking into the bag. What is the probability that she takes out.

(i) an organge flavoured candy (ii) a lemon flavoured candy ?

Q.14 A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marbles is taken out of the box, at random. What is the probabiltiy that the marble taken out will be (i) red ? (ii) white (iii) not green?

ANIL TUTORIALS



Q.15 (i) A lot of 20 bulbs contain 4 defective ones. One bulb is drawn at random from the lot. What is probability that this bulb is defective?

(ii) Suppose the bulb drawn in (i) is not defective and not replaced. Now bulb is drawn at randomfrom the rest. What is the probability that this bulb is not defective ?

Q.16 A lot consists of 144 ball pens of which 20 are defective and others good. Nuri will buy a pen if it it good, but will not buy if it is defective. The shopkeepers draws one pen at random and gives it to her. What is the probability that

(i) She will buy it ? (ii) She will not buy it?

Q.17 12 defective pens are accidently mixed with 132 goods ones. It is not possible to just look at pen and tell whether or not it is defective. One pen is taken out at random from this lot. Determine the probabilty that the pen taken out is good one.

Q.18 Harpreet tosses two different coins simultaneously (say, one is of Re1 and other of Rs 2). What is the probability that he gets at least one head ?

Q.19 There are 40 student in class X of a school of whom 25 are girls and 15 are boys. The class teacher has to select one student as a class representative. He writes the name of each student on a separate card, the cards being identical. Then she puts cards in a bag and stirs them thoroghly. She then draws one card from the bag. What is the probability that the name written on the card is the name of (i)a girl ? (ii)a boy?

Q.20 A letter is chosen at random from the letters of the word 'ASSASSINATION'. Find the probability that the letter chosen is a (i)vowel (ii)consonant,

Q.21 Gopi buys a fish from a shop for his aquarium. The shopkeeper takes out one fish at random from a tank containing 5 male fish and 8 female fish. What is the probability that the fish taken out is a male fish ?

Q.22 A piggy bank contains hundred 50 paisa coins, fifty Rs. 1 coins, twenty Rs. 2 coins and ten Rs. 5 coins. If it is equally likely that one of the coins will fallout when the bank is turned up side down, what is the probability that the coin (i) will be a 50 paisa coin ?

(ii) will not be a Rs 5 coins ?

ANIL TUTORIALS

Q.52 (i) If A and B are two complementary events then what is the relation between P(A) and P(B) ?

(ii) If the probability of happening of an event A is 0.46. What will be the probability of not happening of the event A ?

Q.53 In a T.T. match between Geeta and Ritu, the probability of the winning of Ritu is 0.73. Find the probability of :

(i) winning of Geeta.

(ii) not winning of Ritu.

Q.54 In a race between Mahesh and John; the probability that john will lose the race is 0.54. Find the probability of :

(i) winning of Mahesh. (ii) winning of John.

Q.55 A single letter is selected at random from the word 'Probability'. Find the probability that is a vowel.

Q.56 Two dice are thrown simultaneously. Find the probability that :

(i) both the dice show the same number.

(ii) the first dice shows 6.

(iii) the total (sum) of the numbers on the dice is 9.

(iv) the product of the numbers on the dice is 8.

(iv) the total of the numbers on the dice is greter than 9.

Q.57 If P(E)=0.59; find P(not E).

Q.58 A pair of dice is thrown. Find the probability of getting a sum of 10 or more, if 5 appears on the first die.

Q.59 A card is drawn from a well-shuffled pack of 52 cards. Find the probability that the card drawn is:

(i) a spade (ii) a red card.

(iii) a face card. (iv) 5 of heart or diamond

(v) Jack or queen. (vi) ace and king

(vii) a red and a king (viii) a red or a king.

Q.60 From a well-shuffled deck of 52 cards, one card is drawn. Find the probability that the card drawn is:

(i) a face card. (ii) not a face card.

(iii) a queen of black colour. (iv) a card with number 5 or 6.

(v) a card with number less than 8.

(vi) a card with number between 2 and 9.



Q.31 Five cards- ten, jack, queen, king and an ace of diamonds are shuffled face downwards. One card is picked at random.

(i) What is the probabiltiy that the card is a queen?

(ii) If a king is drawn first and put aside, what is the probability that the second card picked up is the ace?

Q.32 A bag contains 3 red balls and 5 black balls. A ball is drawn at random from the bag. what is probability hat the ball drawn is :

(i) red (ii) black

Q.33 A bag contains cards which are numberered from 2 to 90. A card is drawn at random from the bag. Find the probabiltiy that it bears:

(i) a two digit number. (ii) a number which is a perfect square.

Q.34 There are 30 cards, of same size, in a bag on which numbers 1 to 30 are written. One card is taken out of the bag at random. Find the probability that the number on the selected card is not divisible by 3.

Q.35 A bag contains 5 red, 8 white and 7 black balls. A ball is drawn at random from the bag. Find the probability that the drawn ball is (i) red or white (ii) not black (iii) neither white nor black.

Q.36 From a pack of 52 playing cards jacks, queens, kings and ace of red colour are removed. From the remaining, a card is drawn at random. Find the probability that the card drawn is: (i) a black queen (ii) a red card (iii) a black jack

Q.37 It is given that in a group of 3 students, the probability of 2 students not having the same birthday is 0.992. What is the probability that 2 students have the same birthday?

Q.38 Five cards- the ten,jack,queen,king and ace of diamonds, are well-shuffled with their face downwards. One card is then picked up at random.

(i) What is the probability that the card is the queen?

(ii) If the queen is drawn and put a side, what is the probability that the second card picked up is:

(a)an ace? (b) a queen?

Q.39 One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting :

(i) a queen of red colour. (ii) a black face card.

(iii) the jack or the queen of hearts. (iv) a diamond.

(v) a diamond or a spade.



ANIL TUTORIALS

Q.39 Cards marked with numbers 13,14,15....., 60 are placed in a box and mixed thoroughly. One card is drawn at random from the box. Find the probatility that number on the card drawn is:
(i) divisible by 5
(ii) a number is a perfect square.

Q.40 A bag contains 6 red balls and some blue balls. If the probability of drawing a blue ball from the bag is twice that of a red ball, find the number of blue in the bag.

Q.41 A bag contains tickets numbered 11,12,13,14,.....,30 a ticket is taken out from the bag at random.Find the probability that the number on the drawn ticket:
(i) is a multiple of 7
(ii) is greater than 15 and a multiple of 5.

Q.42 The king, queen and jack of clubs are removed from a deck of 52 playing cards and the remaining cards are shuffled. A card is drawn from the remaining cards. Find the probability of getting a card of:
(i) heart (ii) queen (iii) clubs

Q.43 Two dice are thrown simultaneously. What is the probability that:
(i) 5 will not come up on either on them?
(ii) 5 will come up on at least one?
(iii) 5 will come up at both dice?

Q.44 Fill in the balnks :
(i) Probability of a sure event is.....
(ii) Probability of an impossible even is.....
(iii) The probability of an event (other than sure and impossible even ) lies between .....
(iv) Every elementary event associated to a random experiment has.....probability.
(v) Probability of an event A+Probability of event 'not A'=.....
(vi) Sum of the probabilities of each outcome in an experiment is.....

ANIL TUTORIALS



Q.45 One card is drawn from a pack of 52 cards, each of the 52 cards being equally likely to be drawn. Find the probability that the card drawn is :
(i) an ace (ii) red
(iii) either red or king (iv) red and a king
(v) a face card (vi) a red face card
(vii) '2' of spades
(viii) '10' of a black suit

Q.46 The king, queen and jack of clubs are removed from a deck of 52 playing cards and the well shuffled. One card is selected from the remaining cards. Find the probability of getting.
(i) a heart (ii) a king
(iii) a club (iv) the '10' of hearts

Q.47 Savita and Hamida are friends. What is the probability that both will have(i) the same birthday ? (ii) different birthdays ? (ignoring a leap year)

Q.48 A carton consitst of 100 shirts of which 88 are good, 8 have mirror defects and 4 have major defects. Jimmy, a trader, will only accpet the shirts which are good, but Sujatha, another trader, will only reject the shirts which have mirror defects. One shirt is drawn at random from the carton. What is the probability that it is acceptable to (i)Jimmy ? (ii) Sujatha.

Q.49 Which of the following cannot be the probability of an event ?

(i) $\frac{3}{5}$ (ii) 2.7 (iii) 43%

(iv) $-0.6$ (v) $-3.2$ (vi) 0.35

Q.50 A bag contains 3 white, 5 black and 2 red balls, all of the same shape and size. A ball is drawn from the bag without looking into it, find the probability that the ball drawn is :
(i) a black ball. (ii) a red ball
(iii) a white ball (iv) not a red ball
(v) not a black ball

Q.51 From a well-shuffled deck of 52 playing-cards, one card is drawn. Find the probability that the card drawn will :
(i) be a black card (ii) not be a red card. (iii) be a red card
(iv) be a face card. (v) be a face card of red colour.

ANIL TUTORIALS

D-156, Sector-5, Devendra Nagar Raipur, Helpline: 97525-09261