CHAPTER 14 – PROBABILITY

Cards are marked with numbers 1 to 50 are placed in the box and mixed thoroughly. One card is drawn at random from the box. Answer the following questions from 1 to 5

Q-1	What is the probability of getting a number less than 11? (a) $\frac{1}{50}$ (b) $\frac{2}{5}$ (c) $\frac{1}{5}$ (d) 0
Q-2	What is the probability of getting a multiple of 5? (a) $\frac{1}{25}$ (b) $\frac{1}{5}$ (c) $\frac{9}{50}$ (d) $\frac{11}{50}$
Q-3	What is the probability of getting a number divisible by 3? (a) $\frac{8}{25}$ (b) $\frac{9}{25}$ (c) $\frac{12}{25}$ (d) $\frac{13}{25}$
Q-4	What is the probability of getting a prime number? (a) 1 (b) $\frac{4}{10}$ (c) $\frac{1}{2}$ (d) $\frac{3}{10}$
Q-5	What is the probability of getting an even number? (a) $\frac{12}{25}$ (b) $\frac{1}{2}$ (c) $\frac{13}{25}$ (d) $\frac{4}{10}$

Peyton and Derek were playing the game of snakes and ladders. Both of them had different coloured dice. one blue and one pink. Both the dice are thrown at the same time. On the basis of above information, answer the following questions 6 to 10

Q-6	What is the probability of getting an even number as the sum? (a) $\frac{1}{2}$ (b) $\frac{5}{12}$ (c) $\frac{17}{36}$ (d) $\frac{19}{36}$

Q-7	What is the probability of getting the sum greater than or equal to 10? (a) $\frac{5}{36}$ (b) $\frac{1}{12}$ (c) $\frac{1}{6}$ (d) $\frac{1}{9}$
Q-8	What is the probability of getting a doublet of odd number? (a) $\frac{2}{9}$ (b) $\frac{1}{12}$ (c) $\frac{1}{6}$ (d) 0
Q-9	What is the probability that the difference of the numbers on the two dice is 2? (a) $\frac{1}{6}$ (b) $\frac{5}{36}$ (c) $\frac{1}{18}$ (d) $\frac{2}{9}$
Q-10	What is the probability of getting a multiple of 5 as the sum? (a) $\frac{7}{36}$ (b) $\frac{5}{36}$ (c) $\frac{1}{6}$ (d) $\frac{2}{18}$

Monica, a class 10 student was studying the concept of probability. She was trying to explain the deck of cards to her little brother, she told him, it consists of 52 cards which are divided into 4 suits of 13 cards each spades, hearts, diamonds and clubs. Clubs and spades are of black colour, while hearts and diamonds are of red colour. The cards in each suit are ace, king, queen, jack, 10, 9, 8, 7, 6, 5, 4, 3 and 2. Kings, queens and jacks are called face cards. She then asks her brother to randomly draw a card from a well shuffled deck of cards.

On the basis of above information, answer the following questions 11 to 15.

Q-11	What is the probability of getting an ace card? (a) $\frac{1}{52}$ (b) $\frac{1}{13}$ (c) $\frac{2}{13}$ (d) $\frac{1}{4}$
Q-12	What is the probability of getting a red card? (a) $\frac{1}{13}$ (b) $\frac{1}{4}$ (c) $\frac{5}{13}$ (d) $\frac{1}{2}$

Q-13	What is the probability of getting either black or king card? (a) $\frac{7}{13}$ (b) $\frac{1}{2}$ (c) $\frac{15}{26}$ (d) $\frac{1}{4}$
Q-14	What is the probability of getting red and a queen card? (a) $\frac{2}{13}$ (b) $\frac{1}{4}$ (c) $\frac{1}{26}$ (d) $\frac{1}{13}$
Q-15	What is the probability of getting neither a heart nor a king card? (a) $\frac{2}{13}$ (b) $\frac{9}{13}$ (c) $\frac{35}{36}$ (d) $\frac{16}{36}$
Q-16	The king, queen and jack of clubs are removed from a pack of 52 playing cards. One card is selected at random from the remaining cards. Find the probability that the card is neither a heart nor a king (a) $\frac{34}{49}$ (b) $\frac{36}{49}$ (c) $\frac{35}{49}$ (d) $\frac{15}{49}$
Two coins are tossed simultaneously. Answer the following questions 17 to 20	
Q-17	What is the probability of getting two heads? (a) 1 (b) $\frac{1}{2}$ (c) 0 (d) $\frac{1}{4}$
Q-18	What is the probability of getting at least one head? (a) $\frac{1}{4}$ (b) $\frac{2}{4}$ (c) $\frac{3}{4}$ (d) $\frac{1}{3}$
Q-19	What is the probability of getting no tail? (a) $\frac{1}{2}$ (b) $\frac{1}{4}$ (c) $\frac{3}{4}$ (d) 1
Q-20	What is the probability of getting at most one head? (a) $\frac{3}{4}$ (b) $\frac{1}{2}$ (c) $\frac{1}{4}$ (d) 0

Misha went to see a Christmas party, the clown put 5 red candies, 8 white candies and 4 green candies in his bag. He calls Misha to pick a her color.

On the basis of the above information, answer the following questions 21 to 23

Q-21	What is the probability that the candy taken out will be red? (a) $\frac{5}{17}$ (b) $\frac{1}{5}$ (c) $\frac{4}{17}$ (d) $\frac{1}{17}$
Q-22	What is the probability that the candy taken out will be not green? (a) $\frac{5}{17}$ (b) $\frac{8}{17}$ (c) $\frac{4}{17}$ (d) $\frac{13}{17}$
Q-23	What is the probability that the candy taken out will be red or green? (a) $\frac{1}{17}$ (b) $\frac{5}{17}$ (c) $\frac{9}{17}$ (d) $\frac{8}{17}$

A carton consists of 100 shirts of which 88 are good, 8 have minor defects and 4 have major defects. Jimmy, a trader, will only accept the shirts which are good, but Sujatha, another trader, will only reject the shirts which have major defects. One shirt is drawn at random from the carton. Answer the given question 24 and 25.

Q-24	What is the probability that it is not acceptable to Jimmy? (a) $\frac{8}{100}$ (b) $\frac{88}{100}$ (c) $\frac{4}{100}$ (d) $\frac{12}{100}$
Q-25	What is the probability that it is acceptable to Sujatha? (a) 0.96 (b) 0.88 (c) 0.8 (d) 0.4
Q-26	A letter is chosen at random from the letters of the word 'ASSASSINATION'. The probability that the letter chosen is vowel (a) $\frac{6}{13}$ (b) $\frac{5}{13}$ (c) $\frac{7}{13}$ (d) $\frac{4}{13}$
Q-27	The probability of getting 5 Sundays in the month of August. (a) $\frac{1}{7}$ (b) $\frac{3}{7}$ (c) $\frac{2}{7}$ (d) 1

Q-28	The probability of getting 53 Fridays in a leap year. (a) $\frac{1}{7}$ (b) $\frac{3}{7}$ (c) $\frac{2}{7}$ (d) 1
Q-29	A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball from the bag is thrice that of a red ball, find the number of blue balls in the bag. (a) 11 (b) 12 (c) 14 (d) 15
Q-30	A bag contains 18 balls out of which *x* balls are red.If 2 more red balls are put in the bag, the probability of drawing a red ball will be $\frac{9}{8}$ times the probability of drawing a red ball in the first case. Find the value of *x*. (a) 12 (b) 8 (c) 10 (d) 14

ANSWERS					
Q-1	(c) $\frac{1}{5}$	Q-11	(b) $\frac{1}{13}$	Q-21	(a) $\frac{5}{17}$
Q-2	(b) $\frac{1}{5}$	Q-12	(d) $\frac{1}{2}$	Q-22	(d) $\frac{13}{17}$
Q-3	(a) $\frac{8}{25}$	Q-13	(a) $\frac{7}{13}$	Q-23	(c) $\frac{9}{17}$
Q-4	(d) $\frac{3}{10}$	Q-14	(c) $\frac{1}{26}$	Q-24	(d) $\frac{12}{100}$
Q-5	(b) $\frac{1}{2}$	Q-15	(b) $\frac{9}{13}$	Q-25	(a) 0.96
Q-6	(a) $\frac{1}{2}$	Q-16	(a) $\frac{34}{49}$	Q-26	(a) $\frac{6}{13}$
Q-7	(c) $\frac{1}{6}$	Q-17	(d) $\frac{1}{4}$	Q-27	(b) $\frac{3}{7}$
Q-8	(b) $\frac{1}{12}$	Q-18	(c) $\frac{3}{4}$	Q-28	(c) $\frac{2}{7}$
Q-9	(d) $\frac{2}{9}$	Q-19	(b) $\frac{1}{4}$	Q-29	(d) 15
Q-10	(a) $\frac{7}{36}$	Q-20	(a) $\frac{3}{4}$	Q-30	(b) 8