CASE - BASED STUDY:-

I) In the summer, a survey was conducted among some people about their favourite drinks. The following pie chart shows the data.

Based on the above data, answer the following questions.

i) If 300 people like coffee, how many people were surveyed?

ii) How many more people like tea than cold drinks?

iii) Find the central angle in the pie chart for the people who like juice?

iv) Find the total number of people who like juice and coconut water?

II) There are 1000 workers who travel from home to factory:

The pie-graph shows the proportion of workers using various mode for traveling to work.

Study the pie-graph and answer the questions given below: How many workers travel to factory

i) by bus (ii) by train (iii) by cycle (iv) on foot

III) When a die is thrown, what is the probability of getting:

(i) a prime number
(ii) a number greater than 1
(iii) a number between 3 and 6
(iv) a composite number

IV) A glass jar contains 6 red, 5 green, 4 blue and 5 yellow marbles of same size. Hari takes out a marble from the jar at random. What is the probability that the chosen marble is of:

(i) red colour
(ii) yellow
(iii) green
(iv) not red

MATHEMATICS

CLASS VIII

CASE STUDY QUESTIONS

CHAPTER – 3 – UNDERSTANDING QUADRILATERALS

1. Rita has a rectangular lawn ABCD in the back yard of her house. P, Q, R and S are respectively the mid points of the sides AB, BC, CD and DA. P, Q, R and S are joined to form a quadrilateral PQRS, in which she wishes to grow beautiful flowers.

a) What can you say about the diagonals of lawn ABCD?
   i) They are perpendicular to each other.
   ii) They bisect each other.
   iii) They are perpendicular bisectors of each other.
   iv) They are equal and bisect each other

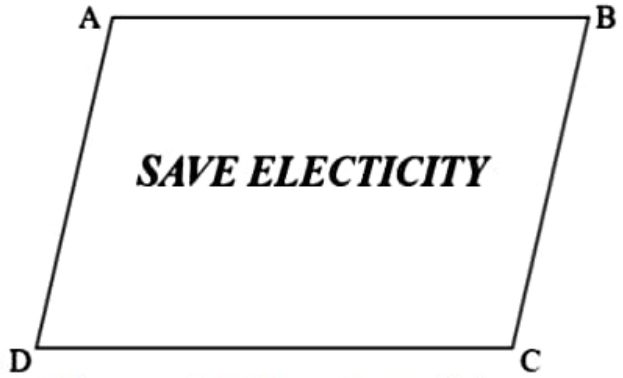
b) Name the quadrilateral formed when P, Q, R and S are joined.
   i) Rectangle
   ii) Rhombus
   iii) Parallelogram
   iv) Square

c) If AB = 12 m and BC = 16 m, then the length of AC is ___
   i) 15 m
   ii) 16m
   iii) 20m
   iv) 24m

OR

d) What is the length of each side of the quadrilateral PQRS?
   i) 8m
   ii) 10m
   iii) 12m
   iv) 16m.

2. Raju makes a poster in the shape od a parallelogram on the topic SAVE ELECTRICITY for an interschool competition as shown in the figure. Based on this answer the following questions.



a) The opposite sides of a parallelogram are
   i) equal,
   ii) unequal
   iii) curves
   iv) bisectors

b) The adjacent angles of a parallelogram are
   i) acute
   ii) equal
   iii) supplementary
   iv) complementary

c) If $< A = (4x + 3)°$ and $< D = (5x - 3)°$, then find the measure of $< B$.
   i) 83°
   ii) 97°
   iii) 76°
   iv) 43°

OR

d) If $< B = 2y°$ and $< D = (3y - 6)°$, then find the value of y.
   i) 3
   ii) 2
   iii) 6
   iv) 5

MATHEMATICS

CLASS VIII

CASE STUDY QUESTIONS

CHAPTER 6 - SQUARES AND SQUARE ROOTS

1) Ramu, the farmer, grows different varieties of fruits and vegetables in his farm. Every morning, he brings them to the market to sell . He bought a new square field of side 42 m. He decided to divide his new field among his four sons in to four equal square fields.

a) What is the area of square field bought by Ramu ? (1 Mark)
b) What is the area of each square field after dividing among Ramu's sons ? (1 Mark)
c) What is the length of side of each square field ? (Use division method) (2 Mark)

OR

d) What is the length of side of each square field? (use prime factorisation method) (2Mark)

2) Meenu is studying in grade 8. Her mother is planning to start a garden centre.She ordered 1296 rose plants , 625 Marigold plants and 324 sunflower plants. She told Meenu to help in arranging plants in the garden. Each plant should be arranged in rows where number of rows equal to number of columns.

a) In how many rows she can plant rose plants ?(1 Mark)
b) In how many rows she can plant Marigold plants ?(1 Mark)
c) Total how many rows will be there when she complete planting all plants ?(2 Mark)

CASE STUDY QUESTIONS

CHAPTER -5: DATA HANDLING

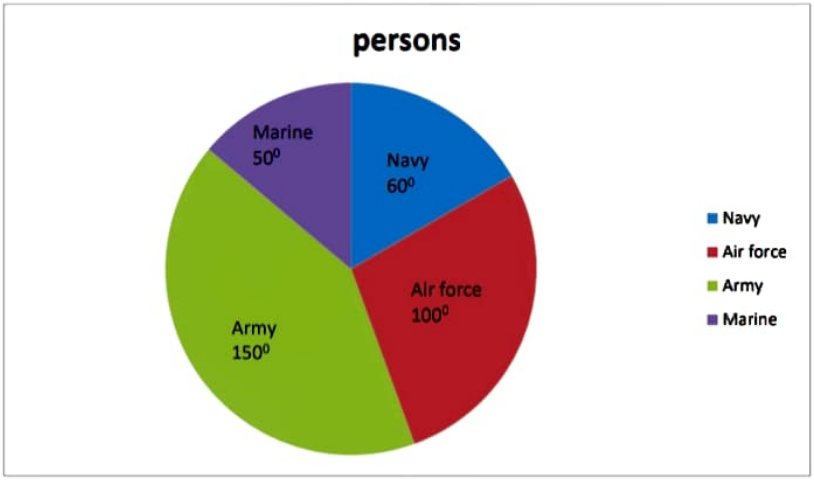
1. A teen- aged boy Praveen asked his father to buy a bike for him. His father is not in favour of buying a bike for his son. The father thought for a while and answered that he has to read the newspaper and check the road accidents that occur everyday. If there is no accident news any day, that day he will buy a bike for him. Praveen prepared a chart of the daily accidents in a week as shown below.

	bike	car	bus
Sunday	15	4	1
Monday	12	3	0
Tuesday	14	3	1
Thursday	13	2	0
Friday	11	2	1
Saturday	14	2	0
Total			

Answer to the following questions

1. Probability of bike accident on Sunday in a week? (1 Mark)
2. Probability of car accident on Sunday in a week? (1 Mark)
3. Probability of bus accident on Sunday in a week? Which vehicle can be used for safe journey?(1+1=2 Marks)

2. Nine hundred men volunteered for joining the armed force. The pie-graph represents the proportion of men in the different armed services. Study the pie graph and answer the questions given below:



1. Find how many men volunteered for each service? (2 Marks)
2. What percent of the men volunteered to join Navy force?(1 mark)
3. What percent of the men volunteered to join Marine force? (1 mark)

3.John is playing a board game with his friends. In the game, they need to roll a fair dice to move their game pieces. John is excited because he knows that rolling certain numbers will give him special advantages. Rolling an even number will allow him to move forward two spaces, while rolling an odd number will only allow him to move forward one space.

Question:

1)What is the probability that John rolls an odd number?

2) what is the probability of getting even numbers?

3) What is the probability of getting odd prime numbers?