## QUESTION 1

a. In a class of 50 students $40 \%$ are girls. Find the number of girls and the boys in the class.
b. By selling an article for `800 a shopkeeper suffers a loss of \(20 \%\). For how much had he bought it? c. The length and the breadth of a plot are 20 m and 14 m respectively. Find the cost of levelling it at \(` 30\) per square meter, find the cost of fencing it at $` 120$ per meter.

## QUESTION 2

a. Multiply: $5 x-6 y-7 z$ and $2 x+3 y$
b. The angles of a triangles are in a ratio 1:2:6 find the angles.
c. Seema spends `1200 in buying three articles pen, writing pad, and pen drive. She spends` 350 on pen, `300 on writing pad, and`550 on pen drive. Represent the given information through a pie graph.

QUESTION 3
a. $\quad A B \| C D$ and $P$ is the transversal find the marked angles

b. Three times a number decreased by 2 is 7 . Find the number.
c. Find the product of $6 x(2 x-4 y)+8 x y$
d. Find the area of the circle whose radius is 7 cm .

## QUESTION 4

a. The perimeter of a rectangle is 30 cm and its length is 8 cm . Find its breadth and the area.
b. A mobile is marked at $` 6000$ and is available at a discount of $12 \%$. Find the sale price of it.
c In the adjoining figure, find the marked angles.


## QUESTION 5

a. Out of ${ }^{`} 36000$, two fifth were kept in a bank. Of remaining money, $40 \%$ is spent on food and $15 \%$ on rent. How much money is spent of the food?
b. The following table shows the maximum temperature of a city on each day of a week. Represent the data by a line graph.

| Days | Mon | Tues | Wed | Thurs | Fri | Sat | Sun |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Max <br> temp | $35^{\circ}$ | $40^{\circ}$ | $30^{\circ}$ | $35^{\circ}$ | $40^{\circ}$ | $30^{\circ}$ | $30^{\circ}$ |

c. If cost price is `700 and overhead expenses is` 100 . The selling price is ` 1600 .

Find its profit.
(2)
d. Solve: $\quad x-2 \frac{1}{3}=5 \frac{1}{2}$

## QUESTION 6

a. The sum of three consecutive odd natural numbers is 45 . Find the numbers.
b. The perimeter and the breadth of rectangular grass plot is 260 m and 55 m respectively. Find the length and the area of the grass plot.
c. There is an increase of $30 \%$ in the rainfall of a city in one year. If the rainfall is 390 cm this year, what was it a year ago?
a. Simplify: $4 x^{2}(3 x-2)+3 x(5 x+6)-4(2 x-6)$
b. Construct $\triangle A B C$ where $A B=6 \mathrm{~cm}, \angle A=45^{\circ}$ and $A C=4.5 \mathrm{~cm}$.
c. The cost price of an article is ` 1200 and selling price is $\frac{5}{4}$ times of its cost price. Find its profit or loss.
d. In the adjoining figure find the value of $x$


## QUESTION 8

a. Divide: $\left(8 a^{2} b^{3} c+4 a b^{2} c^{2}-6 a b c\right) \div\left(-2 a^{2} b c\right)$
b. The following table shows the expenditure on different household items by a family. Display the data by a bar graph.

| Item | Food | Rent | Clothing | Educatio <br> n | Saving | Others |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Expenditur <br> e | 700 | 350 | 175 | 200 | 250 | 150 |

c. In the adjoining figure find the value of the marked angle

d. Solve: $\quad \frac{x+4}{2}+\frac{x}{3}=7$

