## QUESTION1

a. Find the HCF of $90,140,180$, and 210 by long division method
b. Divide ` 1200 among $A, B, C$ in the ratio 2:3:5
c. Find the square root of 4096 by prime factorisation method.

## QUESTION2

a. For every monitor worth ` 8000 sold from his showroom, the manager earns $41 / 2 \%$ as commission. If 7 monitors are sold in a month, how much does the manager earn as commission?
b. In the given figure find the value of $a, b, c$.

c. Subtract $(2 a-3 b+4 c)$ from the sum of $(a+3 b-4 c),(4 a-b+9 c)$ and $(-2 b+3 c-a)$ [4] QUESTION3
a. Multiply $246 \times 345$ and round off to nearest 1000.
b. Using the distributive property of multiplication find the value of (57x3)+(57x7)
c. The diameter of a circle is 14 cm , find the circumference of the circle.
d. A train 450 m long passes a bridge of 225 m in $221 / 2$ secs. What is the speed of the train in $\mathrm{km} / \mathrm{hr}$ ?

QUESTION4
a. Draw a net figure of a square pyramid.
b. Subtract $(4 x-3 y)$ from $(9 x+6 y)$
c. Look at the given diagram and answer the question that follow

i. Write the median of the triangle.
ii. Name the tangent of the circle
iii. Name the secant of the circle
d. The population of the town has increased by $5 \%$ in a year. Last year its population was 20320. What is the present population of the town?
e. Find the LCM of 48 and 72 by common division method.

## QUESTION5

a. Find the cube root of 157464 by prime factorisation method
b. A printing press prints a magazine. One magazine has 240 pages. The press printed 13130 magazines. How many pages were printed in total?
c. Using the distributive property find the value of $60 \times 101$
d. Chalk contains $10 \%$ calcium, $3 \%$ carbon, and $12 \%$ oxygen. Find the amount in gms of each of these compounds in 1 kg of chalk.

## QUESTION6

a. $\quad 28$ pumps can empty a reservoir in 18 hours. In how many hours can 42 such pumps do the same work?
b. For $\triangle A B C, \angle A=60^{\circ}, \angle C=40^{\circ}$, find $\angle B$
c. Find the value of $x^{2}+2 x y-9$ where $\mathrm{x}=3, \mathrm{y}=-4$
d. Find the value of $40 \%$ of 1 year.

## QUESTION7

a. The three angles of a quadrilateral are $72^{\circ}, 84^{\circ}$, and $108^{\circ}$. Find the fourth angle.
b. The speed of a car is $70 \mathrm{~km} / \mathrm{hr}$. It takes 3 hrs to cover a certain distance. Find the distance covered in meters.
c. If $a=8, b=2, c=3$ find $\frac{\mathbf{1 6 b c}-\mathbf{5 a b}}{\mathbf{a b c}-\mathbf{3 b}^{\mathbf{2}}}$
d. Evaluate: $\left(3^{2}+4^{2}\right) \times \frac{1}{\sqrt[3]{125}} \times(-1)^{73}$

## QUESTION8

a. Draw the solid and the net figure of a triangular prism
b. Find the value of the angles for the given figure

c. The price of an article was ` 175. After 1 year it reduced to Rs 105. By how much per cent has the value decreased?
d. Find the circumference and the diameter of a circle whose radius is 21 cm . [3]

