Answers to this Paper must be written on the paper provided separately. You will not be allowed to write during the first 15 minutes. This time is to be spent in reading the question paper. The time given at the head of this Paper is the time allowed for writing the answers. Attempt all questions from Section A and any four questions from Section B. All working, including rough work, must be clearly shown and must be done on the same sheet as the rest of the answer.

Omission of essential working will result in loss of marks.
The intended marks for questions or parts of questions are given in brackets [ ].

## Section A

(Attempt all questions of this section)

## Question 1

a. Find the fourth proportion to $4,7,20$
[2]
b. Cost price of a flower vase is Rs. 120. If the shopkeeper sells it at loss of $10 \%$, find the loss of the shopkeeper.
c. Express: $1 \frac{2}{3}: 2 \frac{1}{2}: 1 \frac{3}{4}$ in simplest form.
d. Find $X$ in $; \frac{1}{13}: \mathrm{X}:: \frac{1}{2}: \frac{1}{5}$
[3]

## Question 2

a. Find the product of: $7 \frac{1}{4} \times 2 \frac{3}{16} \div 8 \frac{3}{4}$
b. Find simple interest and amount on Rs. 8400 for 4 years at $8 \%$ per annum.
c. A fruit seller buys oranges at the rate of 10 for Rs. 75 and sells them at 8 for Rs. 70 Find his gain or loss percent.

## Question 3

a. Manish buys a Rs. 8.75 metro ticket with a Rs 20 note. How much money does he get back?
b. Write the values of :
i. $\quad 0.061$ to nearest tenth
ii. $\quad 0.6428$ to nearest thousandths
c. Represent $\frac{3}{5}$ and $-\frac{12}{5}$ on same number line.
d. If $a: b=3: 4$ and $b: c=8: 9$, Find $a: b: c$

## Question 4

a. In what time will Rs. 3600 amount to Rs. 4320 at $4 \%$ per annum simple interest. [3]
b. Simplify $92.4 \div 8.4 \times 2.8$
c. At what rate per cent per annum simple interest will Rs. 66000 amount to Rs. 72720 in 2 years.

## Section B <br> (Attempt any 4 questions of this section)

## Question 5

a. Convert the $0.57 \overline{4}$ into a vulgar fraction
b. In an army camp, 300 soldiers had provision for 13 days. If 40 of them are transferred to other camp, how long will the provision last?
c. The salary of Mrs. Savita is Rs. 32000 per month. $10 \%$ of it is deducted by employer as provident fund. Of the remaining money, she spends $20 \%$ on house rent, $46 \%$ on food, $14 \%$ on the education of children and saves the rest. Find
i. How much is credited into her provident fund account
ii. How much she spends on food
iii. How much she spends on education of children.
iv. How much she saves.

## Question 6

a. If 15 men can dig a stench 35 m long in one day, then how many men can dig a similar stench 84 m long in one day
b. By actual division, express $\frac{2000}{33}$ as recurring decimal fraction.
c. 1200 boys and 600 girls are examined in a test. $42 \%$ of the boys and $30 \%$ of the girls passed. Find the percentage of students failed.

## Question 7

a. Express $\frac{\mathbf{7 2 9}}{\mathbf{6 4}}$ in exponential notation.
b. Show that 6, 36, 216 are in continued proportion.
c. A certain sum of the money has been divided into two parts in the ratio 5: 8. If the first part is Rs. 250, find the total amount.

## Question 8

a. 5 men can paint a hall in 18 hrs. How many men will be able to paint it in 10 hrs ?
[3]
b. A man bought a bicycle for Rs. 6250 and had to sell it for Rs. 5875 . Find his loss and loss percent.
c. Simplify and express $\frac{10^{2} \times 15^{3}}{2^{2} \times 3 \times 5^{5} \times 6^{4}}$ as a rational number:

## Question 9

a. A car travels $12 \frac{1}{2} \mathrm{Km}$ in 2 liter of petrol. How much distance it can travel in $42 \frac{3}{5}$ liters of petrol?
b. The angles of a triangle are in ratio 5: 6: 7. Find each angle.
c. A buys an article for Rs 650 and sells it to $B$ at a profit of $20 \%$. B sells it to $C$ at a loss of 20 \% what does C pay.

