Answer (i) $A+B+C = 12$

$C \rightarrow$ 36 days.

1 day of work by $= C = 1/36$,

1 days of work A and B $= \frac{1}{12} - \frac{1}{36}$

1 days of work by A & B $= \frac{3-1}{36} = \frac{2}{36}$

$= \frac{1}{18}$

$\therefore$ 1 days of work by A & B $= 1/18$

$\therefore$ Total work by A & B $= \frac{1}{18} \times 18 =$ 18 days.

Answer 18 days. Ans

(ii)

Rahul can work = 15 days.

R + M = 10 days.

R → work for (1) days $= \frac{1}{15}$

In 10 days → Rahul work $\Rightarrow \frac{10}{15} = 2/3$

So, M → work in 10 days → $1/3$

So profit → 2/3 (Rahul)

Mayra → 1/3

Total profit → 2/3 (600) = Rahul.

Rahul → 400 Rs.

Mayra → 1/3 (600) = 200 Rs.

Rahul → 400, Mayra → 200

(iii) Time taken by A → 10 days.

1 day of work by A = 1/10

Time taken by B = 15 days.

1 day — B = 1/15

First two days of work (A & B) = 1/10 + 1/15 = (3 + 2)/30

= 1/6

So 1 day of work by (A & B) = 1/12

So Total work by (A & B) → 12 days.

Answer = 12 days.

(iv) undertakes work → 40 days.

employs → 25 m.

After 24 days → 1/3 work.

Remaining days → 40 − 24 = 16 days.

Remaining work → $1 - \frac{1}{3} = \frac{2}{3}$

Want to Complete 4 days earlier ⇒ 16 − 4 = 12 days

∵ 25 m → 24 days → 1/3 work

1 → 24 days → $\frac{1}{3 \times 25} = \frac{1}{75}$ work

1 — 12 → $\frac{1}{150}$

∵ $\frac{1}{150}$ work done by 1 men in 12 days.

∵ $\frac{1}{150}$ → 12 → 1 men.

1 → 12 → 150 men.

$\frac{2}{3}$ → 12 → $150 \times \frac{2}{3}$ ⇒ 100 men

∵ 25 people are work already.

So Extra worker → 100 − 25 = 75 Ans

Ans → 75

(V)

A → 50% work in 9 days.

B → 25 work in 9 days.

So. Total work by A & B in 9 days = 50 + 25

= 75%