

Solutions

1. (C)
- | | | |
|------|----|----|
| | A | B |
| Eff. | 10 | 15 |
| | 2 | 3 |
- $$B = \frac{75000}{5} \times 3 = 45000$$
2. (B)
- | | | |
|------|-----|-----|
| | A | B |
| | 4.5 | 9.9 |
| Eff. | 11 | 5 |
- $$A = \frac{80000}{16} \times 11 = 5000 \times 11 = 55,000$$
3. (C) 4A — 63
- $$7A + B = 36 \quad 252$$
- So B's efficiency = 3
- $$B's \text{ Share} = 5950 \times \frac{3}{7} = 2550$$
4. (A) ATQ,
- | | | |
|------------|-------|-------|
| | Swati | Priya |
| Efficiency | 3 | 2 |
- total work = $6(3 + 2) = 30$
- $$T_{\text{Priya}} = \frac{30}{2} = 15 \text{ days}$$
- $$T_{\text{Rathi}} = 15 + 5 = 20 \text{ days}$$
- So,
- | | | | |
|------------|-------|-------|-----------------|
| | Swati | Priya | Rathi |
| efficiency | 3 | 2 | $\frac{30}{20}$ |
| = | 6 | 4 | 3 |
- $$\text{So, Total wages} = \frac{13}{6} \times 1800.75 = ₹ 3901.62$$
5. (C) Total work = 120
- A — 8 — 15
- B — 10 — 12
- C — 12 — 10
- | | | | |
|-----|----|----|----|
| | A | B | C |
| W/c | 15 | 12 | 10 |
- $$B \text{ का हिस्सा} = \frac{7400}{37} \times 12 = 2400$$
6. (A)
- | | | |
|--------|--|----|
| A — 6 | $\begin{array}{c} \searrow \\ 120 \\ \swarrow \end{array}$ | 20 |
| B — 8 | | 15 |
| C — 15 | | 8 |

- $$A's \text{ share} = \frac{20}{43} \times 94.60 = 44$$
- $$B's \text{ share} = \frac{15}{43} \times 94.60 = 33$$
- $$C's \text{ share} = \frac{8}{43} \times 94.60 = 17.60$$
7. (A) 4A — 27
- 2B — 54
- 108
- 9(A + B + C) — 12
- Now efficiency of C = $9 - (2 + 4) = 3$
- $$\text{Share of C} = 4320.06 \times \frac{3}{9} = 1440.06$$
8. (D) Sandy + Mandy = 8/13
- Andy — 5/13
- $$\text{Share of Andy} = \frac{2626 \times 5}{13} = ₹ 1010$$
9. (D)
- | | | | |
|---|---|----|---|
| 4 | A | 15 | $\begin{array}{c} \searrow \\ 60 \\ \swarrow \end{array}$ |
| 3 | B | 20 | |
| 2 | C | 30 | |
- let A & B worked for x days and C worked for y days
- $$\Rightarrow (4 + 3)x + 2y = 60$$
- $$\Rightarrow 7x + 2y = 60 \quad \dots(i)$$
- And
- $$\frac{(3x - 2y)}{(7x + 2y)} \times 18000 = 6000$$
- by eq. (i)
- $$\frac{(3x - 2y)}{60} \times 3 = 1$$
- $$\Rightarrow 3x - 2y = 20 \quad \dots(ii)$$
- by eq. (i) and eq. (ii)
- $$10x = 80$$
- $$\Rightarrow x = 8 \text{ days}$$
- So, A worked for 8 days
10. (C)
- | | | | |
|---|---|----|---|
| 4 | A | 15 | $\begin{array}{c} \searrow \\ 60 \\ \swarrow \end{array}$ |
| 3 | B | 20 | |
| 2 | C | 30 | |
- Let A and B worked for x days and C worked for y days.
- $$\Rightarrow 7x + 2y = 60$$