SOLUTIONS

1. (a)
   A : B : C = 13750 : 16250 : 18750
   = 11 : 13 : 15
   ∵ B(13) → 5200

   Total share, 39 unit = $\frac{5200}{13}$ × 39
   = Rs.15600

2. (c)
   A : B = 92500 : 112500 = 37 : 45
   45 → 9000
   ∵ Total = (37 + 45) = 82

   82 unit → $\frac{9000}{45}$ × 82
   = Rs. 16400

3. (b)
   A : B = 92500 : 112500 = 37 : 45
   B (45) → 9000

   A (37) → $\frac{9000}{45}$ × 37 = Rs.7400

4. (d) Let the capital of three partners be x, y, z.
   ATQ,
   x × 7 : y × 8 : z × 14 = 8 : 7 : 5
   7x : 8y : 14z = 8 : 7 : 5

   x : y : z = $\frac{8}{7} : \frac{7}{8} : \frac{5}{14}$

   x : y : z = 64 : 49 : 20

5. (c)
   A : B : C = 13750 : 16250 : 18750
   = 11 : 13 : 15
   13 unit → 5200
   1 unit → 400
   A – C = 4 unit → 4 × 400 = 1600

6. (b) Let the share of C = x

	A		B		C
(x + 8000)	:	(x + 4500)	:	x

ATQ,
x + 8000 + x + 4500 + x = 75500
3x + 12500 = 75500
3x = 63000
x = 21000
A's Share = x + 8000 = 29000
B's Share = x + 4500 = 25500
C's Share = x = 21000
Now,
A : B : C = 29000 : 25500 : 21000
= 58 : 51 : 42

Total ,151 unit → 45300

A's profit → $\frac{45300}{151}$ × 58 = 17400

7. (d)

A	:	B	:	C
20×12+5×4	:	18×12	:	25×12
260	:	216	:	300
65	:	54	:	75

   Total Profit = Rs. 5820
   Profit share of 'C'

   = $\frac{5820}{(65+54+75)}$ × 75

   = $\frac{5820}{194}$ × 75 = Rs.2250

8. (c)

	A	:	B	:	C
	4		2		9
1st →	4×3		2×3		9×12
2nd →	2×3		4×3		
3rd →	1×3		8×3		
4th →	0.5×3		16×3		
Total →	22.5		90		108

Total profit = $\frac{24000}{22.5}$ × 220.5
= Rs.235200

9. (b) A : B : C = $\left(\frac{2}{5} : \frac{3}{4} : \frac{5}{8}\right)$ × 40
   = 16 : 30 : 25
   We know, P ∝ C × T

A	:	B	:	C
16×4=64		30×4=120		25×12=300
24×8=192		24×8=192		
(64+192=256)		(120+192=312)		

   Total = 256 + 312 + 300 = 868

   Profit of B = $\frac{2,82,100}{868}$ × 312

   = Rs.1,01,400

10. (a)

A	:	B	:	C
9x		6x		11x

    ATQ,

    $\frac{9x - 500}{11x + 500} = \frac{4}{6}$

    ⇒ 54x – 3000 = 44x + 2000
    ⇒ 10x = 5000
    ⇒ x = 500
    Sum of share of (B and C) in begining = (6x + 11x)
    = 17x = 17 × 500 = Rs. 8500

11. (d) Profit ratio of A & B = 744000 : 496000 = 3 : 2
    Ratio of time of A & B

    = 10 : $\frac{15}{2}$ = 4 : 3

    We know, Capital ∝ P × $\frac{1}{T}$

    Ratio of capital of A & B = 9 : 8
    1 unit → 6,00000
    Capital of B, 8 unit = 6,00,000 × 8
    = Rs. 48,00,000

12. (d)

A	B	C
112000×12	80000×8	72000×6
$= 1344000$	$= 640000$	$= 432000$
	72000×2	64000×2
	$= 144000$	$= 128000$

Ratio of Total Capital of A, B and C is

A	:	B	:	C
1344000		784000		560000
12	:	7	:	5

Total Profit $= \dfrac{9800}{7} \times 24 = 33600$

13. (a) Let the total profit be 35 unit

Profit of A $= \dfrac{1}{7} \times 35 = 5$ unit

Profit of B $= \dfrac{1}{5} \times 35 = 7$ unit

Profit of C $= 35 - 5 - 7 = 23$ unit

Capital of A and B are x and y respectively.

We know, Capital × Time = Profit

$\Rightarrow 5x : 7y : 23$

ATQ, $\dfrac{5x}{4600 \times 9} = \dfrac{5}{23}$

On solving, $x = 9 \times 200 =$ Rs. 1800

14. (b) Let the total capital be 9 unit.

	A	B	C
I	3 :	2 :	4
T	1 :	1 :	1
Profit	3 :	2 :	4

9 unit → Rs. 20,250

1 unit → Rs. 2250

The profit share of C is more than that of B by $= (4 - 2) \times$ Rs. 2250

$=$ Rs 4500

15. (a)

A	B	C
100	400	400
200	200	400
400	100	400
800	50	400
1500	750	1600

Ratio of profit, 1500 : 750 : 1600

$= 30 : 15 : 32$

Total profit $= \dfrac{4,50,000}{15} \times 77$

$= 23.1$ Lakh

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