



PEA502A – Lecture #10

PARTNERSHIP

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Partnership

When two or more than two persons run a business jointly, they are called *Partners* and the deal is known as *Partnership*.



Working and Sleeping Partners

A partner who manages the business is known as a *working partner* and the one who simply invests the money is a *sleeping partner*.



Ratio of Division of Gains

- ✓ When investments of all the partners are for the same time, the gain or loss is distributed among the partners in the **ratio of their investments**.
- ✓ Suppose A and B invest Rs. x and Rs. y respectively for a year in a business, then at the end of the year:

$$(\text{A's share of profit}) : (\text{B's share of profit}) = x : y.$$



Ratio of Division of Gains

- ✓ When investments are for different time periods, then equivalent capitals are calculated for a unit of time by taking (capital \times number of units of time). Now gain or loss is divided in the ratio of these capitals.
- ✓ Suppose A invests Rs. x for p months and B invests Rs. y for q months then,

$$(\text{A's share of profit}) : (\text{B's share of profit}) = xp : yq.$$



Question Q10.1

A and B invest in a business in the ratio 3 : 2. If 5% of the total profit goes to charity and A's share is Rs. 855, the total profit is:

- A. Rs. 1425
- B. Rs. 1500
- C. Rs. 1537.50
- D. Rs. 1576



Answer: Option B

Explanation:

Let the total profit be Rs. 100.

After paying to charity, A's share = Rs. $95 \times \frac{3}{5}$ = Rs. 57.

If A's share is Rs. 57, total profit = Rs. 100.

If A's share Rs. 855, total profit = $100/57 \times 855$ = 1500.



Question Q10.2

Simran started a software business with a capital of Rs. 50,000. After six months, Nanda joined her with a capital of Rs. 80,000. After 3 years, the business had a profit of Rs. 24,500. What was Simran's share of the profit?

- A. Rs. 9,423
- B. Rs. 10,250
- C. Rs. 12,500
- D. Rs. 10,500

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consider time
of investment
also.



Answer: Option D

Explanation:

Simran : Nanda = $(50000 \times 36) : (80000 \times 30) = 3 : 4$.

Simran's share = $\text{Rs. } 24500 \times \frac{3}{7} = \text{Rs. } 10,500$.



Question Q10.3

Arun, Kamal and Vinay invested Rs. 8000, Rs. 4000 and Rs. 8000 respectively in a business. Arun left after six months. If after eight months, there was a gain of Rs. 4005, then what will be the share of Kamal?

- A. Rs. 890
- B. Rs. 1335
- C. Rs. 1602
- D. Rs. 1780



Answer: Option A

Explanation:

$$\begin{aligned}\text{Arun : Kamal : Vinay} &= (8,000 \times 6) : (4,000 \times 8) : (8,000 \times 8) \\ &= 48 : 32 : 64 \\ &= 3 : 2 : 4\end{aligned}$$


$$\text{Kamal's share} = \text{Rs. } 4005 \times 2 = \text{Rs. } 890.9$$



Question P10.1

A, B, C subscribe Rs. 50,000 for
subscribes Rs. 4000 more than
more than C. Out of a total profit
A receives:

- A. Rs. 8400
- B. Rs. 11,900
- C. Rs. 13,600
- D. Rs. 14,700



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Time of
investment
is equal.



Answer: Option D

Explanation:

Let $C = x$.

Then, $B = x + 5000$ and $A = x + 5000 + 4000 = x + 9000$.

So, $x + x + 5000 + x + 9000 = 50000$

$3x = 36000$

$x = 12000$

$A : B : C = 21000 : 17000 : 12000 = 21 : 17 : 12$.

A's share = Rs. $35000 \times \frac{21}{50} = \text{Rs. } 14,700$.



Question P10.2

Kamal started a business investing Rs. 8000. After five months, Sameer joined with an investment of Rs. 8000. If at the end of the year, the profit is Rs. 6970, then What will be Sameer's share in the profit?



- A. Rs. 1883
- B. Rs. 2380
- C. Rs. 3690
- D. None of these



Answer: Option B

Explanation:

$$\text{Kamal : Sameer} = (9000 \times 12) : (8000 \times 7) = 27 : 14$$

$$\text{Sameer's share} = \text{Rs. } 6970 \times \frac{14}{41} = \text{Rs. } 2380$$



Question P10.3


Three partners shared the profit in the ratio 5 : 7 : 8. They had participated for 10 months, 8 months and 7 months respectively. What was the ratio of their investments?

A. 5 : 7 : 8

B. 20 : 49 : 64

C. 38 : 28 : 21

D. None of these



Quick yak:
Time of
investment
is different.



Answer: Option D

Explanation:

Let their investments be Rs. X for 14 months, Rs. Y for 8 months and Rs.z for 7 months respectively.

$$14x : 8y : 7z = 5 : 7 : 8$$

Now, $\frac{14x}{8y} = \frac{5}{7}$

$$98x = 40y \text{ and } y = \frac{49}{20}x$$

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

$$112x = 35z \text{ and } z = \frac{112}{35}x = \frac{16}{5}x$$

$$\begin{aligned} \text{So, } x : y : z &= x : \frac{49}{20}x : \frac{16}{5}x \\ &= 20 : 49 : 64 \end{aligned}$$



Next Class: Chain Rule