



Date : 18th Dec 2023

Quantitative Aptitude - Partnership

English

**Q:1** A started a business by investing Rs. 50000. After 6 months, B joined him by investing Rs. 75000. After another 6 months, C joined with Rs. 125000. In what ratio the profit will be shared among A, B, and C after 2 years?

1. 6 : 5 : 3
2. 8 : 9 : 10
3. 9 : 11 : 10
5. None of these

**Q:2** Three persons A, B, and C started a restaurant. A invested Rs. 1.2 lakhs. After 2 years, B joined, and then after 1 more year, C joined the company, B and C invested in a ratio 3 : 4. At the end of 5 years from the start, the total profit from the restaurant is Rs. 4.05 lakhs out of which share of C is Rs. 30000 less than that of A, then what is the amount invested by B?

1. Rs. 1.5 lakhs
2. Rs. 2.1 lakhs
3. Rs. 1.8 lakhs
5. Rs. 2.4 lakhs

**Q:3** The ratio of investment of A, B, and C in a business is 1 : 2 : 3. After 4 months, A invested the same amount as before while the remaining two withdraw half of their investment. What will their profit ratio be after one year?

1. 4 : 5 : 6
2. 6 : 5 : 4
3. 5 : 4 : 6
5. 5 : 6 : 4

**Q:4** Anand started a business of garments with an investment of 50000 rupees. After 8 months Ankush had joined the Anand with an investment of 100000 rupees. Find the ratio of profit percentage between them at the end of the year.

1. 2 : 3
2. 4 : 3
3. 3 : 4
5. 5 : 8

**Q:5** Three friends Chris, Hari, and Tony invested in a business in the ratio of 4 : 5 : 6. After 6 months Tony withdrew half of his capital. If the sum invested by Chris is Rs.36000, then find the profit earned by Tony out of the total profit of Rs. 60000 by the end of the year.

1. Rs 35,000
2. Rs 60,000
3. Rs 50,000
5. Rs 20,000

**Q:6** Kiran invested Rs. 4000 in her business for 3 years. After one-year Sandeep invested Rs. 5000 in the same business and after one more year, Tushar invested Rs. 8000 in the same business. But Sandeep backed out after 18 months and Tushar also backed out after 9 months. At the end of 3 years, the total profit from the business was Rs. 10200. What would be the share of Sandeep? (approx)

1. Rs.2130
2. Rs.3000
3. Rs.2550
5. Rs.2500

**Q:7** 3 persons X, Y, and Z started a business with the capital in the ratio of 4 : 7 : 5. One of the partners Y died in an accident, after 9 months. 10% of Y's share out of the profit at the end of the year, was sent to charity while the rest was distributed between X and Z according to their investment. Total profit at the end of the year is Rs. 38000. How much less amount did X get than Z in the end? (approximate)

1. Rs. 2000
2. Rs. 3000
3. Rs. 2550
5. Rs. 4066

**Q:8** 2 partners Uttam and Yuvraj invested Rs. 72000 and Rs. 80000 respectively in a business. They took the salary of Rs. 12000 and Rs. 10000 per month respectively out of the profit. If the profit at the end of the year was Rs. 340000 then how much was received by Yuvraj after deducting the salaries?

1. Rs. 50000
2. Rs. 45000
3. Rs. 60000
5. Rs. 40000

**Q:9** Ram, Gopal, and Rahul started a business with an investment of 15 lakhs, 10 lakhs, and 5 lakhs respectively. Ram and Gopal are also working as Directors and Chairmen. They got a fixed monthly



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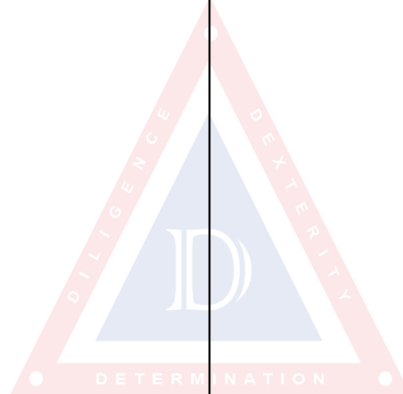
English

salary of Rs. 38000 and Rs. 25000 respectively out of the profit company makes. find out the earnings of Rahul if the company makes a profit of 21 lakhs at the end of the year. (in Rs.)

1. 2,24,000
2. 22,400
3. 3,56,800
5. 35,600

**Q:10** Ramesh started a business along with Suresh and ratio of initial capital of Ramesh and Suresh is 3 : 5. Ramesh and Suresh also get total Rs. 5000 and Rs. 2500 respectively as their salary from the total profit at the end of 1-year so that share of both the persons (including salary) are same, then what is total profit from the business at the end of a year?

1. Rs. 16500
2. Rs. 17000
3. Rs. 18500
5. Rs. 18000



### Answer Key

1. (2)	2. (3)	3. (3)	4. (4)	5. (5)
6. (2)	7. (5)	8. (5)	9. (1)	10. (4)

### Answer and Solutions

**Q:1** The correct answer is **option 2** i.e. **8 : 9 : 10**

From the question:

A invested Rs. 50000 for 2 years (24 months)

B invested Rs. 75000 for 1.5 years (18 months)

C invested Rs. 125000 for 1 year (12 months)

Hence,

The ratio in which the profit will be shared

$$= (50000 \times 24) : (75000 \times 18) : (125000 \times 12)$$

$$= (50 \times 4) : (75 \times 3) : (125 \times 2)$$

$$= 8 : 9 : 10$$

**Q:2** The correct answer is **option 3** i.e. **Rs. 1.8 lakhs.**

Let the amount invested by B and C be '3x' and '4x' respectively

The ratio of profit share of A, B and C

$$\Rightarrow [1.2 \times 5] : [3x \times 3] : [4x \times 2] = 6 : 9x : 8x$$

According to the question:

$$\Rightarrow 30000 = 405000 \times [(6 - 8x)/(6 + 9x + 8x)]$$

$$\Rightarrow 6 + 17x = 13.5(6 - 8x)$$

$$\Rightarrow 6 + 17x = 81 - 108x$$

$$\Rightarrow 125x = 75$$

$$\Rightarrow x = 0.6$$

Hence,

Amount invested by B = 3x = Rs. 1.8 lakhs

**Q:3** The correct answer is **option 3** i.e. **5 : 4 : 6**

Profit = Investment  $\times$  time

$$\text{Profit share} = [1 \times 4 + 2 \times 8] : [2 \times 4 + 1 \times 8] : [3 \times 4 + 1.5 \times 8]$$

$$= (4 + 16) : (8 + 8) : (12 + 12)$$

$$= 20 : 16 : 24$$

$$= 5 : 4 : 6$$

**Q:4** The correct answer is **option 4** i.e. **3 : 2**

Anand/Ankush = (Capital of Anand  $\times$  time)/(Capital of Ankush  $\times$  time)

$$\Rightarrow \text{Anand/Ankush} = (50000 \times 12)/(100000 \times 4) = 600000/400000 = 6/4 = 3/2$$

Hence, Ratio = 3 : 2

**Q:5** The correct answer is **Option 5** i.e. **Rs.20,000.**

Sum invested by Chris = 4x = 36000

$$\Rightarrow x = 9000$$

Investments made by Chris, Hari, and Tony = Rs 36000, Rs 45000, Rs 54000

The ratio in which the profit will be divided = Ratio of their investment

$$\Rightarrow 36000 \times 12 : 45000 \times 12 : 54000 \times 6 + 27000 \times 6$$

$$\Rightarrow 8 : 10 : 9$$

$$\text{So, Tony's share} = (9/27) \times 60000 = \text{Rs.20000}$$

**Q:6** The correct answer is **Option 2** i.e. **Rs.3000.**

We know that ratio of capital is equal to the ratio of profit

Here,

$$18 \text{ months} = 18/12 = 1.5 \text{ years}$$

$$9 \text{ months} = 9/12 = 0.75 \text{ years}$$

The ratio of capitals (with respect to investment time) of Kiran, Sandeep, and Tushar:

$$\Rightarrow (4000 \times 3) : (5000 \times 1.5) : (8000 \times 0.75)$$

$$\Rightarrow 12000 : 7500 : 6000 = 600 : 375 : 300$$

Now, the total profit is: Rs.10200

$$\text{Sandeep's share} = 375/(600 + 375 + 300) \times 10200 = \text{Rs.3000}$$

**Q:7** The correct answer is **Option 5** i.e. **Rs. 4066.**

3 persons X, Y, and Z started a business with the capital in the ratio of 4 : 7 : 5.

Y died of an accident after 9 months

Hence,

Ratio in which the profit will be shared

$$\Rightarrow (4 \times 12) : (7 \times 9) : (5 \times 12) = 16 : 21 : 20$$

Given:

Total profit = Rs. 38000

So,

$$\text{Share of X} = 16/57 \times 38000 =$$

$$\text{Rs.10667 (approximate)}$$

$$\text{Share of Y} = 21/57 \times 38000 = \text{Rs. 14000}$$

$$\text{Share of Z} = 20/57 \times 38000 = \text{Rs. 13333 (approximate)}$$

10% of Y's share out of the profit at the end of the year is sent to charity while the rest i.e. 90% is distributed between X and Z according to their investment

So, More amount received by Z than X out of the profit of Y

$$\Rightarrow 14000 \times 0.9 \times (20 - 16)/36 = \text{Rs. 1400}$$





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Hence, X received Rs. 4066 ( $= 2666 + 1400$ ) less than Z out of the profit

**Q:8** The correct answer is **option 5** i.e. **Rs. 40000**

Total profit = Rs. 340000

Total amount given in terms of salaries

$= 12 \times (12000 + 10000)$

= Rs. 264000

So, Remaining profit =  $340000 - 264000$

= Rs. 76000

Ratio in which the profit will be shared

$= 72000 : 80000$

$= 9 : 10$

Hence, Amount received by Yuvraj =  $76000 \times 10/19$

= Rs. 40000

**Q:9** The correct answer is **Option 1** i.e. **2,24,000**.

From the question, it can be derived that Ram and Gopal are the working partners.

Thus they will also be compensated with a fixed salary every month besides their shares in the profit. While Rahul is the passive partner. He will only get his part of the profit based on the ratio of his investment.

The share of investment of Ram, Gopal, and Rahul is 15 : 10 : 5. So, the share of Rahul's profit will be  $5/30$ . But before calculating his share we need to deduct the yearly salaries of Ram and Gopal.

Ram's yearly salary:  $(38000 \times 12) = \text{Rs. } 4,56,000$

Gopal's yearly salary:  $(25000 \times 12) = \text{Rs. } 3,00,000$

Thus, the remaining profit after the deduction of their salaries will be,  $21 - (4.56 + 3.00) = \text{Rs. } 13.44$  lakhs.

So, Rahul's share will be,  $(5/30 \times 13.44) = \text{Rs. } 2,24,000$

**Q:10** The correct answer is **option 4** i.e. **Rs. 17500**.

Since, investment period for both the persons is same. So, their ratio of profit will be same as the ratio of their investment.

Let profit share of Ramesh and Suresh is '3x' and '5x' respectively.

According to the question:

$(3x + 5000) = (5x + 2500)$

$2x = 2500$

$x = 1250$

So,

Total profit from the business at the end of 1-year

$= (3x + 5x) + 5000 + 2500$

= Rs. 17500