11- Manish started a business investing Rs. 45,000. After 3 months, Vibhor joined him with a capital of Rs. 60,000. After another 6 months, Vivek joined them with a capital of Rs. 90,000. At the end of the year, they made a profit of Rs. 16,500. Find the share of Vivek?

- **A.**3300
- **B.**4400
- **C.**5500
- **D.**6600
- **E.**None of these

Answer & Explanation

Answer - **A** (3300)

Explanation - Clearly, Manish invested his capital for 12 months, Vibhor for 9 months and Vivek for 3 months.

So, ratio of their capitals = (45000 x 12) : (60000 x 9) : (90000 x 3)

= 540000 : 540000 : 270000 = 2:2:1.

∴ Manish's share = Rs. [16500 x 2/5] = Rs. 6600;

Vibhors share = Rs. [16500 x 2/5] = Rs. 6600;

Vivek's share = Rs. [16500 x 1/5] = Rs. 3300.

12- A and B are partners in a business. A contributes 1/4 of the capital for 15 months and B received 2/3 of the profit. For how long B's money was used?

- **A.**4 months
- **B.**6 months
- **C.**8 months
- **D.**10 months
- **E.**None of these

Answer & Explanation

Answer - **D** (10 months)

Explanation - Let the total profit be Rs. z.

Then, B' share = Rs. 2z/3, A's share = Rs. [z - 2z/3] = Rs. z/3

∴ A : B = z/3 : 2z/3 = 1 : 2.

Let the total capital be Rs. x and suppose B's money was used for a months. Then,

[1/4 a x 15] / [3/4 a x y] = 1/2

⇔ y = [15 x 2 / 3] = 10.

Thus, B's money was used for 10 months.

13- A and B started a business in partnership investing Rs. 20,000 and Rs. 15,000 respectively. After six months, C joined them with Rs. 20,000. What will be B's share in total profit of Rs. 25,000 earned at the end of 2 years from the starting of the business?

- **A.**7500
- **B.**9000
- **C.**9500
- **D.**10000
- **E.**None of these

Answer & Explanation

Answer - **A** (7500)

Explanation - A : B : C = (20,000 x 24) : (15,000 x 24) : (20,000 x 18) = 4 : 3 : 3.

$$\text{B's share} = \text{Rs. } 25000 \times \frac{3}{10} = \text{Rs. } 7{,}500.$$

14- A and B started a partnership business investing some amount in the ratio of 3 : 5. C joined then after six months with an amount equal to that of B. In what proportion should the profit at the end of one year be distributed among A, B and C?

- **A.**3 : 5 : 2
- **B.**3 : 5 : 5
- **C.**6 : 10 : 5
- **D.**Data inadequate
- **E.**None of these

Answer & Explanation

Answer - **C** (6 : 10 : 5)

Explanation - Let the initial investments of A and B be 3*x* and 5*x*.

A : B : C = (3*x* x 12) : (5*x* x 12) : (5*x* x 6)

= 36 : 60 : 30

= 6 : 10 : 5.

15- A starts business with Rs. 3500 and after 5 months, B joins with A as his partner. After a year, the profit is divided in the ratio 2 : 3. What is B's contribution in the capital?

- **A.**7500
- **B.**8000
- **C.**8500
- **D.**9000
- **E.**None of these

Answer & Explanation

Answer - **D** (9000)

Explanation - Let B's capital be Rs. *x*.

$$\text{Then, } \frac{3500 \times 12}{7x} = \frac{2}{3}$$

$14x = 126000$

$x = 9000$.

16- A and B started a business with initial investments in the ratio 14 : 15 and their annual profits were in the ratio 7 : 6. If A invested the money for 10 months, for how many months did B invest his money?

- **A.**2 months
- **B.**4 months
- **C.**6 months
- **D.**8 months
- **E.**None of these

Answer & Explanation

Answer - **D** (8 months)

Explanation - Suppose A invested Rs. 14a for 10 months and B invested Rs. 15a for b months. Then,

14a x 10 / 15a x b = 7/6 ⇒ b = 840 / 105 = 8

Hence, B invested the money for 8 months.

17- A starts business with Rs.3500 and after 5 months, B joins with A as his partner. After a year, the profit is divided in the ratio 2 : 3. What is B's contribution in the capital?

- **A.**6000
- **B.**9000
- **C.**9500
- **D.**12000
- **E.**None of these

Answer & Explanation

Answer - **B** (9000)

Explanation - Let B's capital be Rs. a. Then, 3500 x 12 / 7a = 2/3 ⇔ 14a = 126000 ⇔ a = 9000.

18- A began a business with Rs. 85,000. He was joined afterwards by B with Rs. 42,500. For how much period does B join, if the profits at the end of the year are divided in the ratio of 3 : 1?

- **A.**8 months
- **B.**6 months
- **C.**4 months
- **D.**2 months
- **E.**None of these

Answer & Explanation

Answer - **A** (8 months)

Explanation - Suppose B joined for a months. Then, 85000 x 12 / 42500 x a = 3/1

or a = 85000 x 12 / 42500 x 3 = 8.

So, B joined for 8 months.

19- Three partners A, B, C start business. Twice A's capital is equal to thrice B's capital and B's capital is four times C's capital. Out of a total profit of Rs. 16,500 at the end of the year. B's share is :

- **A.**4000
- **B.**6500
- **C.**6600
- **D.**6000
- **E.**None of these

Answer & Explanation

Answer - **D** (6000)

Explanation -

Let C = x. Then, B = $4x$ and $2A = 3 \times 4x = 12x$ or A = $6x$

A : B : C = $6x : 4x : x = 6 : 4 : 1$

So B's capital = Rs. $16500 \times \frac{4}{11}$ = Rs. 6000.

20- A started a business with Rs. 21,000 and is joined afterwars by B with Rs. 36,000. After how many months did B join if the profits at the end of the year are divided equally?

- **A.**3 months
- **B.**4 months
- **C.**5 months
- **D.**6 months
- **E.**None of these

Answer & Explanation

Answer - **C** (5 months)

Explanation - Suppose B joined after x months Then, 21000 x 12 = 36000 x (12 – x) 36x = 180 x = 5 Hence, B joined after 5 months.