



ANSWERS & EXPLANATION

CSAT 2022 – ABHYAAS TEST – 3 – 3881

1 (b)

Let original average salary of those 40 teachers be Rs. x .

When 10 more teachers were appointed, then average salary reduced by Rs. 750.

According to the question,

$$40x + 90000 = (40 + 10)(x - 750)$$

$$\text{Or } 40x + 90000 = 50(x - 750)$$

$$\text{Or } 40x + 90000 = 50x - 37500$$

$$\text{Or } 10x = 127,500$$

$$x = 12,750$$

Therefore, total salary of 40 teachers = $40x = 40 \times 12750 = \text{Rs. } 5,10,000$

Hence, option (b) is the correct answer.

2 (a)

Given equation, $x^2 + 10x + 21 = 0$

Here $a = 1$, $b = 10$ and $c = 21$

$$\therefore \text{Product of roots} = c/a = 21/1 = 21$$

Current week price = Rs. 112

So, next week price = $112 + 21 = \text{Rs. } 133$

Hence, option (a) is the correct answer.

3 (a)

Let x be the cost price of the plant.

$$\text{Profit at } 12\% = x \times 12/100$$

$$\text{Profit at } 8\% = x \times 8/100$$

According to the question,

$$(12x/100) - (8x/100) = 32$$

$$\text{Or } 4x/100 = 32$$

$$\text{Or } x = 800$$