

Corrigendum/Explanation SFG 2024 Level 2 Test 24

Number of items taken for scoring: 49

Number of items dropped: 01 (Question no. 48)

There is 1 change in today's paper (Q.48). In Q.48, there was no matching option earlier.

In Q.48) There was no matching option earlier.

For Future Reference:

Q.48) A certain sum "C", is invested at a simple interest rate of 8% per year, it yields a monthly interest of 300 rupees. Another sum, "D", is invested at a 6% annual interest rate, compounded semi-annually. This investment also yields a monthly interest of 300 rupees. What is the difference between the two initial investments, C and D?

a) 14133.30

b) 15870.70

c) 16550.34

d) 16870.79

Ans) a

Exp) option a is the correct answer.

$$\text{Total Interest} = 12 * 300 = 3600$$

$$P = ((S.I * 100) / R) * T = 45000$$

$$\text{So Rs .C} = 45000$$

$$\text{Compound Interest C.I} = D(1 + R/100)^t - D$$

As the interest is compounded semi-annually

$$C.I = D(1 + R/2*1/100)^{2t} - D = 3600$$

$$D(1 + R/2*1/100)^{2t} - 1 = 3600$$

Rate of interest R=6%

$$R/2 = 3\%$$

$$t=1$$

$$2t=2$$

Solving the equation

$$D \left((1 + 3/100)^2 - 1 \right) = 3600$$

$$D(1.03^2 - 1) = 3600$$

$$D = 3600 / 0.0609$$

$$= \text{Rs } 59113.3005$$

$$\text{Therefore the difference} = 59113.3005 - 45000 = 14113.3005$$

Hence a is correct.

Subject:) CSAT

Topic:) Quantitative Aptitude

Subtopic:)