

ANSWERS & EXPLANATION

APTITUDE TEST–Test (3745) – 2022

1.(c)

P, Q and R invested Rs. 80000, Rs. 100000 and Rs. 120000 respectively.

Each will get interest on one's capital at the rate of 15% per annum and the remaining profit will be divided in the ratio of their invested capitals and at the end of the year.

Interest for P = $(80000 \times 15 \times 1)/100 = 12000$

Interest for Q = $(100000 \times 15 \times 1)/100 = 15000$

Interest for R = $(120000 \times 15 \times 1)/100 = 18000$

Total interest for (P + Q + R) = $(12000 + 15000 + 18000) = \text{Rs. } 45000$

Remaining profit = $(59250 - 45000) = \text{Rs. } 14250$

Ratio of invested capitals of P, Q and R = $80000 : 100000 : 120000 = 4 : 5 : 6$

According to the question,

$(4 + 5 + 6) \text{ units} = 14250$

Or 15 units = 14250

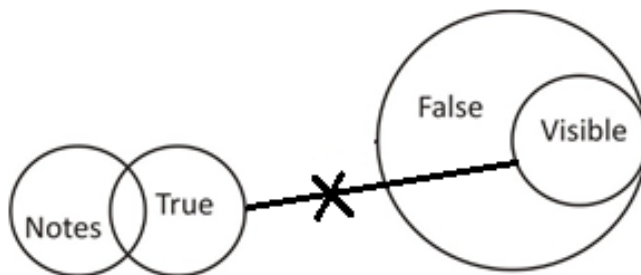
Or 1 unit = 950

So, Share of R in remaining profit = $950 \times 6 = 5700$

Total share of R in the profit = $5700 + 18000 = \text{Rs. } 23700$

2.(c)

One possible Venn diagram for the given statements is as follows:



Conclusions:

I. Few true are false is a possibility → Follows (as the possibility definitely exists)

II. Many visible are notes → Does not follow (as it is possible but not definite)

III. Some false are visible → Follows (as only false is visible)

Hence, only conclusions I and III follow.

3.(b)

Till 10 a.m. distances covered by X and Y are 50 km and 100 km respectively.

Remaining distance to be covered = $800 - 150 = 650 \text{ km}$

Relative speed of X and Y = 100 km/hr

∴ Time taken = $\text{Distance/Relative Speed} = 650/100 = 13/2 \text{ hrs.} = 6 \text{ hrs. } 30 \text{ min.}$

Required time = 10 a.m. + 6 hrs. 30 min. = 4 : 30 p.m.

So, Two cars will cross each other at 4 : 30 p.m.