

Mixtures And Alligations Questions Overview

Mixtures And Alligations Questions have a good weightage in the Banking Exam and the type of question asked in Banking exam is similar to the question mentioned below. It has been solved and explained by Gargi.ai Experts and they have tried to elaborate the concept used in Mixtures And Alligations Questions.

Question

A mixture has milk and water in the ratio 4: 1. When 50% of the mixture is taken out and replaced by 24 liters of water then the ratio of milk to water in the mixture becomes 1: 1. Find initial quantity of mixture.

Difficulty : Moderate

Average Time : 35 Seconds

Options :

1. 80 liters
2. 45 liters
3. 70 liters
4. 60 liters
5. 75 liters

Solution

The correct answer is **option 1** i.e **80 liters**

Let initial quantity of milk and water in the mixture be '40x liters' and '10x liters' respectively.

ATQ,

$$\frac{\left(40x \times \frac{1}{2}\right)}{10x \times \frac{1}{2} + 24} = \frac{1}{1}$$

$$\frac{20x}{5x + 24} = \frac{1}{1}$$

$$20x = 5x + 24$$

$$15x = 24$$

$$x = 1.6$$

So, required quantity = 40x + 10x

= 50x = 80 liters

