

Pipes And Cistern Questions Overview

Pipes And Cistern 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 Pipes And Cistern Questions.

Question

Time taken to complete a work by A alone is 100% more than the time taken by both A and B to complete the work. B is thrice as efficient as C. B and C together take 12 days to complete the same work. How many days A will take to complete the work alone?

Difficulty : Moderate

Average Time : 39 Seconds

Options :

1. 32 days
2. 16 days
3. 24 days
4. 20 days
5. None of these

Solution

The correct answer is **option 2** i.e. **16 days**

Let, C takes x days to complete the work alone

Then, B takes $\left(\frac{x}{3}\right)$ days to complete the work alone

$$\left(\frac{1}{x}\right) + \left(\frac{3}{x}\right) = \frac{1}{12}$$

or, $x = 48$ days

Suppose, A and B take 'y' days to complete the work together

Then, A takes $2y$ days to complete the work alone

$$\left(\frac{1}{2y}\right) + \left(\frac{1}{16}\right) = \frac{1}{y}$$

or, $\frac{1}{2} = \frac{1}{16}$

or, $2y = 16$

Hence, A will take 16 days

