

# 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

In a tank, there are 3 pipes attached. There are two inlet pipes A and B, while C is an outlet pipe. It takes 4 hours for pipe A to fill the tank alone while pipe B takes 50% more time than A to do the same. Pipe C can empty the tank alone in 3 hours. If the tank is half full and all three pipes are working together, how much time it will take to fill the tank?

Difficulty : Moderate

Average Time : 46 Seconds

Options :

1. 6 hours
2. 5.3 hours
3. 5.6 hours
4. 6.3 hours
5. 6.6 hours

## Solution

The correct answer is **option 1** i.e. **6 hours**

Given, pipe A can fill the tank alone in 4 hours i.e.  $100/4 = 25\%$  part each hour

Pipe B can fill the tank in 50% more time than pipe A i.e.  $4 + 4/2 = 6$  hours

So, each hour pipe B can fill  $100/6 = 16.66\%$  part of the tank

Pipe C can empty the tank in 3 hours, so in each hour it can empty  $100/3 = 33.33\%$  part of the tank

Working together, these 3 pipes will fill  $(25 + 16.66 - 33.33 = 8.33\%)$  part of the tank each hour.

Now, the tank is already 50% full, the time required to full another 50% part =  $50/8.33 = 6$  hours