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

Two taps A and B can fill a tank in 20 hours and 24 hours respectively. There is an outlet tap C. If all the taps are opened together, then the tank will be filled in 60 hours. In how many hours tap C alone can empty the tank?

Difficulty : Moderate

Average Time : 38 Seconds

Options :

1. 13.33 hours
2. 17.66 hours
3. 9.28 hours
4. 15.33 hours
5. 21.66 hours

Solution

The correct answer is **option 1** i.e. **13.33 hours**

Total capacity of tank = LCM of 20, 24 and 60 = 120

Calculate the efficiency of each tap

Per hour efficiency of tap A = 120/20 = 6

Per hour efficiency of tap B = 120/24 = 5

Per hour efficiency of taps (A + B - C) = 120/60 = 2

Efficiency of tap C

(Efficiency of taps A + B - C) - (Efficiency of tap A + Efficiency of tap B) = 2 - (6 + 5) = 2 - 11 = -9

Time taken by tap C to empty the tank

120/9 = 13.33hours

+91 90449 32444
www.gargi.ai
connect@gargi.ai