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

A cistern can be filled by two supply pipes in 20 mins and 30 mins respectively. But a waste pipe can empty in an hour. Both the supply pipes were opened together to fill the empty cistern, but by mistake, the waste pipe was also open. After how much time 4/5 of the cistern will get filled?

Difficulty : Moderate

Average Time : 40 Seconds

Options :

1. 12 minutes

2. 10 minutes

3. 15 minutes

4. 18 minutes

5. 8 minutes

Solution

The correct answer is **option 1** i.e. **12 minutes**

Understanding	Application
Suppose total capacity of cistern = 60 units (LCM of 20, 30 and 60)	Efficiencies of supply pipes: 60/20 = 3 and 60/30 = 2 And Efficiency of waste pipe = 60/60 = 1

4/5 of the cistern = 4/5 × 60 = 48 units	So, Time in which 4/5 of the cistern will get filled = 48/(2 + 3 − 1) = 12 minutes