**Pipes and Cistern**

**To Find Total Time**

1. Pipe a can fill a tank in 5 hours, pipe B in 10 hours and pipe C in 30 hours. If all the

pipes are open, in how many hours will the tank be completely filled?

a)12 min b)15 min c)9 min . d)6 min

1. Pipe A, B and C can fill the cistern in 5, 10 and 15 hours respectively. Pipe D can empty the cistern in 10 hours. If all the four pipes are opened at 6 AM, at what time will the cistern be full?

a.9.30 AM b. 8.30 AM c. 9.45 AM d. 8.45 AM

1. If three pipes are opened together, a tank is filled in 12 hours. If one of the taps can fill in 10 hours and another in 15 hours. At what time does the third pipe empty the tank?

a.10 hours b. 11 hours c. 12 hours d. 15 hours

1. It takes two pipes A and B, running together, to fill a tank in 6 minutes. It takes A 5 minutes less than B to fill the tank, then what will be the time taken by B alone to fill the tank?

a.10 min b. 15 min c. 20 min d. 25 min

1. Pipe A takes 12 hrs to fill the tank, Pipe B takes 15 hrs to fill the tank, Pipe C takes 6 hrs to empty the tank. For 5 hrs in the beginning, pipe A and B are opened and then the third pipe also opened. After how much time will the tank be filled or emptied?

a.10 hours b. 15 hours c. 30 hours d.45 hours

**Efficiency based :**

1. Pipe B is half efficient as pipe A. Pipe A can empty a tank in 30 min. Both the pipes are opened simultaneously and emptied the tank. If the tank is full, in how many minutes will it be emptied?

a.16 mins b. 24 mins c. 20 mins d. 10 mins

1. A tank is filled in 5 hours by three pipes A,B and C. The Pipe C is twice as fast as B and B is twice as fast as A.How much time will pipe A alone take to fill the tank?

a) 20 hours b) 25 hours c) 35 hours d) 45 hours

1. 4 pipes can fill a reservoir in 15, 20, 30 and 60 hours respectively. If the first Was opened at 6 AM, second at 7 AM, third at 8 AM and fourth at 9 AM. When will the reservoir be full?

a.12 PM b. 1 PM c. 2PM d. 3 PM

1. Pipe A can fill the tank 3 times faster in comparison to pipe B. It takes 36 minutes for pipe A and B to fill the tank together. How much time will pipe B alone take to fill the tank?

a.100 min b. 124 min c. 134 min d. 144 min

**Alternative:**

1. Two pipes A and B work alternatively with a third pipe C to fill a swimming pool. Working alone, A, B and C require 10, 20 and 15 hours respectively. Find the total time required to fill the pool.

a. 5hrs 14 minutes b. 6hrs 54 minutes c. 7hrs 14 minutes d. 8hrs 54 minutes

11. Pipe A could fill an empty cistern in 18 hrs while pipe B can drain a filled cistern in 30 hrs. When the cistern is empty, pipe A is turned on for an hour and then turned off. The pipes were alternately left open for an hour each time till the cistern was full. How much time did it take for the cistern to be full?

a. 90 hours b. 86 hours 40 min c. 86 hours d.86 hours 48 min

**Remaining Part**

1. Two pipes A,B can fill a tank in 24 min. and 32 min. respectively. If both the pipes are opened simultaneously, after how much time B should be closed so that the tank is full in 18 min.?

a) 2min b) 15min c) 8 min d) 10 min

1. Three pipes A, B and C fill a cistern in 6 hrs, after working together for 2 hours C is closed and A and B fill the cistern in 8 hours. Then find the time in which the cistern can be filled by pipe C?

a.12 hours b. 14 hours c. 10 hours d. 11 hours

**Capacity of the Tank:**

1. If two pipes can fill a cistern in 24 and 20 minutes respectively and another pipe can empty 3 gallons of water per minute from that cistern. When all the three pipes are working together, it takes 15 minutes to fill the tank. What is the capacity of the cistern?

a.100 gallons b. 120 gallons c.150 gallons d. 200 gallons