PIPES AND CISTERN

1. A tap can fill a tank in 9 hours and another can empty it in 18 hours. If both the taps are opened simultaneously, the time (in hours) to fill the tank is
A. 18 B. 16 C. 20 D. 22

2. Two taps can separately fill a tank in 9 minutes and 12 minutes respectively and when the waste pipe is, opened they can together fill it in 6 minutes. The waste pipe can empty the fill tank in
A. 36 B. 32 C. 30 D. 34

3. Two pipes A and B would fill a tank in 30 and 38 minutes respectively. Both pipes being opened find when the first pipe must be turned off so that the cistern may be just in 19 minutes.
A. 15 minutes B . 12 minutes C. 13 minutes D . 11 minutes

4. There is a leak in the bottom of a cistern. When the cistern is in through repair, it would be filled in 4 1/2 hours. If now takes half an hour longer. If the cistern is full, how would long the leak take to empty the cistern?
A. 45 hours B . 36 hours C. 35 hours D . 48 hours

5. Two pipes A and B can fill a cistern in 15 minutes and 30 minutes respectively both are opened together, but at the end of 2 minutes, B turned off. How much longer will the cistern take to fill totally?
A. 14 minutes B. 13.5 minutes C. 11 minutes D . 12 minutes

6. A bath can be filled by the cold water pipe in 15 minutes and by hot water pipe in 30 minutes. A person leaves the bath room after turning on both pipes simultaneously and returns at the moment when the bath should be full. Finding, however, that the waste pipe has been open, he now close it. In 5 minutes more the bath is full. In what time would the waste pipe empty it?
A. 10 minutes B. 20 minutes C. 15 minutes D. 25 minutes

7. If two pipes function simultaneously the tank will be filled in 3 hours. One pipe fills the tank 8 hours faster than the other. How many hours does the slower pipe take to fill the tank?
A. 18 hours B. 16 hours C. 12 hours D . 14 hours

8. Two pipes P and Q can fill a cistern in 4 hours and 5 hours respectively. If they are turned up alternatively. If they Are turned up alternately for one hour each the time taken to fill the cistern is
A. 2 hrs 25 minutes B. 4 hrs 24 minutes C. 8 hrs 24 minutes D. 3 hrs 25 minutes

9. Two pipes A and B can fill a tank in 36 min. and 44 min respectively. If both pipes are opened simultaneously after how much time B should be closed so that the tank is full in 27 minutes.
A. 10 B . 15 C. 12 D . 11

10. The tank is filled in 12 hours when two pipes are made to function simultaneously. If one pipe fills the tank 5 hours slower than the other the second pipe fills the tank in
A. 6 hours B. 20 hours C. 10 hours D. 14 hours

11. A water tank normally takes 7 hours to be filled by a tap but because of the leak, it takes another 2 hours. In how many hours will the leak empty a full water tank?
(a) 20.5 hours (b) 24.4 hours (c) 30 hours (d) 31.5 hours

12. Tap A fills a tank in 20 minutes while C empties it at 1/3rd the rate at which A fills it. At 12 : 00 noon, A and C are simultaneously started and when the tank is 50% full, tap A is turned off. At what time will the tank be empty?
(a) 12 : 35 pm (b) 12 : 45 pm (c) 12 : 30 pm (d) 12 : 55 pm

13.Tap A can fill a tank in 20 hours, B in 25 hours but tap C can empty a full tank in 30 hours. Starting with A, followed by B and C each tap opens alternatively for one hour period till the tank gets filled up completely. In how many hour the tank will be filled up completely?
(a) $51\frac{11}{15}$ 、(b) $52\frac{2}{3}$ (c) $24\frac{4}{11}$ (d) Can't determine
14.A water tank has three taps A, B and C. A fills four buckets in 24 minutes, B fills 8 buckets in 1 hour and C fills 2 buckets in 20 minutes. If all the taps are opened together a full tank is emptied in 2 hours. If a bucket can hold 5 litres of water, what is the capacity of the tank?
(a) 120 liters (b) 240 liters (c) 180 liters (d) 60 liters

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