Basic Mathematics Quiz 005 (Pipes)

1. One tap can fill a cistern in 2 hours and another can empty the cistern in 3 hours. How long will they take to fill the cistern if both the taps are opened?

   A) 6 hours

   B) 7 hours

   C) 6.30 hours

   D) None of these

2. A tap can fill a tank in 25 minutes and another can empty it in 50 minutes. Find out whether the tank will be filled up or emptied in how many minutes?

   A) The tank is filled up in 50 minutes

   B) The tank is emptied in 25 minutes

   C) The tank is filled up in 25 minutes

   D) None of these

3. Two taps A and B can fill a tank in 10 hours and 15 hours, respectively. If both the taps are opened together, the tank will be full in

   A) 8 hours

   B) 6 hours

   C) 5 hours

   D) None of these

4. Two pipes A and B can separately empty a cistern in 12 hours and 15 hours, respectively. In what time will the cistern be emptied, if both the pipes are opened together?

   A) 5 hours 30 minutes

   B) 7 hours

   C) 6 hours 40 minutes

   D) None of these

5. Two pipes can fill a tank in 10 hours and 12 hours, respectively. While a third pipe emptied the full tank in 20 hours. If all the three pipes operate simultaneously, in how much time the tank will be filled?

   A) 7 hours 30 minutes

   B) 6 hours 40 minutes

   C) 8 hours 30 minutes

   D) None of these

6. Three pipes A, B and C can fill a cistern in 10, 12 and 15 hours, respectively, while working alone. If all the three pipes are opened together, the time taken to fill the cistern will be

   A) 4 hours

   B) 6 hours

   C) 7 hours

   D) None of these

7. A cistern is normally filled in 8 hours, but it takes 2 hours longer to fi ll because of a leak at its bottom. If the cistern is full, the leak will empty it in

   A) 35 hours

   B) 45 hours

   C) 40 hours

   D) None of these

8. A cistern has a leak which would empty in 8 hours. A tap is turned on which admits 6 litres a minute into the cistern and it is now emptied in 12 hours. The cistern can hold

   A) 6840 litres

   B) 7860 litres

   C) 8640 litres

   D) None of these

9. Two pipes A and B can fill a cistern in 4 minutes and 6 minutes, respectively. If these pipes are turned on alternately for 1 minute each, then how long will it take for the cistern to fill?

   A) 4 m 40 s

   B) 3 m 20 s

   C) 4 m 50 s

   D) 3 m 30 s

10. Two taps can separately fill a cistern in 10 minutes and 15 minutes, respectively. When the waste pipe is open, they can together fill it in 18 minutes. The waste pipe can empty the full cistern in

   A) 7 minutes

   B) 9 minutes

   C) 13 minutes

   D) 23 minutes

Answer Keys

Question	Answer
1	A
2	A
3	B
4	C
5	A

Question	Answer
6	A
7	C
8	C
9	A
10	B