

TOPIC: - PIPE AND CISTERN

PRACTICE SET

- Two pipes A and B can fill a tank in 20 minutes and 30 minutes respectively. If both pipes are opened together, the time taken to fill the tank is:
 - 50 minutes
 - 12 minutes
 - 25 minutes
 - 15 minutes
- Three taps A, B and C can fill a tank in 12, 15 and 20 hours respectively. If A is open all the time and B and C are opened for one hour each alternatively, the tank will full in:
 - 6 hours
 - $6\frac{1}{2}$ hours
 - 7 hours
 - $7\frac{1}{2}$ hours
- A pipe of diameter 'd' can drain a certain water tank in 40 minutes. The time taken by a pipe of diameter "2d" for doing the same job in:
 - 5 minutes
 - 10 minutes
 - 20 minutes
 - 80 minutes
- A cistern can be filled with water by a pipe in 5 hours and it can be emptied by a second pipe in 4 hours. If both the pipes are opened when the cistern is full, the time in which it will be emptied the cistern:
 - 9 hours
 - 18 hours
 - 20 hours
 - $20\frac{1}{2}$ hours
- One pipe can fill a tank three times as fast as another pipe. If together the two pipes can fill the tank in 36 minutes, the slower pipe alone will be able to fill the tank in:
 - 81 minutes
 - 108 minutes
 - 144 minutes
 - 192 minutes
- Two pipes can fill a cistern in 3 hours and 4 hours respectively and a waste pipe can empty it in 2 hours. If all three pipes are kept open, then the cistern will be filled in:
 - 5 hours
 - 8 hours
 - 10 hours
 - 12 hours
- Two pipes can fill a tank in 15 hours and 20 hours respectively, while the third pipe can empty it in 30 hours. If all the pipes are opened simultaneously, the empty tank will be filled in:
 - 10 hours
 - 12 hours
 - 15 hours
 - $15\frac{1}{2}$ hours
- If a pipe fills a tank in 6h, then what part of the tank will the pipe fill in 1 h?
 - $\frac{1}{3}$
 - $\frac{1}{6}$
 - $\frac{1}{4}$
 - $\frac{1}{5}$
 - None of these

9. An inlet pipe fills $\frac{1}{8}$ part of a tank in 1 h. How much time will the pipe take to fill the empty tank?
a) 4h b) 2h c) 6h
d) 8h e) None of these
10. An outlet pipe can empty a cistern in 3h. In what time will the pipe empty two-third part of the cistern?
a) 4h b) 2h c) 6h
d) 5h e) None of these
11. Inlet A is four times faster than inlet B to fill a tank. If A alone can fill it in 15 min, how long will it take if both the pipes are opened together?
a) 10 min b) 12 min c) 15 min
d) 14 min e) None of these
12. There are two inlets A and B connected to a tank. A and B can fill the tank in 16h and 10h, respectively. If both the pipes are opened alternately for 1h, starting from A, then how much time will the tank take to be filled?

- a) $13\frac{1}{4}$ h b) $11\frac{6}{8}$ h c) $12\frac{2}{5}$ h
d) $12\frac{1}{4}$ h e) None of these

13. A pipe can empty a cistern in 27 hours. Find the time in which $\frac{2}{3}$ part of the cistern will be emptied?
a) 9 hours b) 12 hours c) 15 hours
d) 18 hours e) None of these
14. A tap can fill a cistern in 8 hours and another can empty it in 16 hours. If both the taps are opened simultaneously, the time (in hours) to fill the tank is?
a) 8 b) 10 c) 16
d) 24 e) None of these
15. A pipe can empty a tank in 15 hrs and another pipe can empty it in 10 hrs. If both the pipes are opened simultaneously, find the time in which a full tank is emptied?
a) 8 hrs b) 6 hrs c) 4 hrs
d) 5 hrs e) None of these

SOLUTIONS

1. b
2. c
3. b
4. c
5. c
6. d
7. b
8. b
9. d
10. b
11. b
12. c
13. d
14. c
15. b

