



1) Three pipes A, B and C can fill a tank from empty to full in 30 minutes, 20 minutes, and 10 minutes respectively. When the tank is empty, all the three pipes are opened. A, B and C discharge chemical solutions P, Q and R respectively. What is the proportion of the solution R in the liquid in the tank after 3 minutes?

- a)  $\frac{5}{11}$       b)  $\frac{6}{11}$   
c)  $\frac{7}{11}$       d)  $\frac{8}{11}$

2) A pump can fill a tank with water in 2 hours. Because of a leak, it took 2 hours to fill the tank. The leak can drain all the water of the tank in:

- a)  $4\frac{1}{3}$  hours      b) 7 hours  
c) 8 hours      d) 14 hours

3) Pipes A and B can fill a tank in 5 and 6 hours respectively. Pipe C can empty it in 12 hours. If all the three pipes are opened together, then the tank will be filled in:

- a)  $1\frac{13}{17}$  hours      b)  $2\frac{8}{11}$  hours  
c)  $3\frac{9}{17}$  hours      d)  $4\frac{1}{2}$  hours

4) Two pipes A and B can fill a tank in 20 and 30 minutes respectively. If both the pipes are used together, then how long it will take to fill the tank ?

- a) 10 mins      b) 12 mins  
c) 15 mins      d) 20 mins

5) A cistern can be filled by a tap in 4 hours while it can be emptied by another tap in 9 hours. If both the taps are opened simultaneously, then after how much time cistern will get filled ?

- a) 7 hours  
b) 7.1 hours  
c) 7.2 hours  
d) 7.3 hours

6) 12 buckets of water fill a tank when the capacity of each tank is 13.5 litres. How many buckets will be needed to fill the same tank, if the capacity of each bucket is 9 litres?

- a) 15 bukets      b) 17 bukets  
c) 18 bukets      d) 19 bukets

7) A tap can fill storage in 8 hours and another tap can discharge it in 16 hours. In the event that both the taps are open, the time taken to fill the tank will be:

- a) 8 hours      b) 10 hours  
c) 16 hours      d) 24 hours

8) A channels can fill a tank in x hours and another funnel can exhaust it in y ( $y > x$ ) hours. In the event that both the funnels are open, in how long will the tank be filled?

- a) (x-y) hours  
b) (y-x) hours







- c)  $xy/(x-y)$  hours  
d)  $xy/(y-x)$  hours

9) A funnel can discharge a tank in 40 minutes. A second pipe with distance across twice as much as that of the first is likewise joined with the tank to purge it. The two together can exhaust the tank in:

- a) 8 min  
b)  $40/3$  min  
c) 30 min  
d) 38 min

10) Two channels can fill a tank in 15 hours and 12 hours separately and a third pipe can purge it in 4 hours. In the event that the channels are opened all together at 8 am, 9 am and 11am separately, the tank will be exhausted at

- a) 11.40 am  
b) 12.40 pm  
c) 1.40 pm  
d) 2.40 pm

11) A tank is fitted with two taps A and B. A can fill the tank totally in 45 minutes and B can purge the full tank in 60 minutes. On the off chance that both the taps are opened on the other hand for 1 minute, then in what amount of time the unfilled tank will be filled totally?

- a) 2 hrs 55 min  
b) 3 hrs 40 min

- c) 5 hrs 53 min  
d) none of these

12) A substantial tanker can be filled by two pipes A and B in an hour and 40 minutes separately. How long will it take to fill the tanker from unfilled state if B is utilized for a fraction of the time and A and B fill it together for the other half?

- a) 15 min.  
b) 20 min.  
c) 27.5 min.  
d) 30 min.

13) A break in the base of a tank can purge the full tank in 6 hours. A channel funnel fills water at the rate of 4 liters for each moment. At the point when the tank is full, the channel is opened and because of the break, the tank is void in 8 hours. The limit of the tank is

- a) 5260 ltr.  
b) 5760 ltr.  
c) 5846 ltr.  
d) 6970 ltr.

14) A cistern has 3 pipes A, B and C. A and B can fill it in 3 hours and 4 hours respectively while C can empty the completely filled cistern in 1 hour. If the pipes are opened in order at 3, 4 and 5 pm respectively, at what time will the cistern be empty?







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- a) 7:12 PM
- b) 6:15 PM
- c) 8:12 PM
- d) 8:35 PM

15) Two pipes A and B can fill a water tank in 20 and 24 min respectively. A third pipe C can empty at the rate of 3 gallons per minute. If A, B and C opened together fill the tank in 15 min, the capacity of the tank (in gallons) is:

- a) 180
- b) 150
- c) 120
- d) 60

16) Taps A, B and C are connected to a water tank and the rate of flow of water is 42 ltr/hr, 56 ltr/hr and 48 ltr/hr respectively. A and B fill the tank while tap C empties the tank. If the three taps are opened simultaneously, the tank gets filled up completely in 16 hours. What is the capacity of the tank?

- a) 800 ltr
- b) 960 ltr
- c) 2346 ltr
- d) None of these

17) A cistern is normally filled in 8 hours but takes two hours longer to fill because of a leak in its bottom. If the cistern is full, the leak will empty it in ?

- a) 20 hrs
- b) 28 hrs
- c) 36 hrs
- d) 40 hrs

18) A cistern has a leak which would empty the cistern in 20 minutes. A tap is turned on which admits 4 liters a minute into the cistern, and it is emptied in 24 minutes. How many liters does the cistern hold ?

- a) 360 lit
- b) 480 lit
- c) 320 lit
- d) 420 lit

19) Taps X and Y can fill a tank in 30 and 40 minutes respectively. Tap Z can empty the filled tank in 60 minutes. If all the three taps are kept open for one minute each, how much time will the taps take to fill the tank?

- a) 48min
- b) 72min
- c) 24min
- d) None of these

20) A large tanker can be filled by two pipes A and B in 60 and 40 minutes respectively. How many minutes will it take to fill the tanker from empty state if B is used for half the time and A and B fill it together for the other half ?

- a) 31 min
- b) 29 min
- c) 28 min
- d) 30 min

21) 12 buckets of water fill a tank when the capacity of each tank is 13.5 liters. How many buckets will be needed to fill the same tank, if the capacity of each bucket is 9 liters?

- a) 8
- b) 15
- c) 16
- d) 18







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22) Two pipes A and B can separately fill a cistern in 10 and 15 minutes respectively. A person opens both the pipes together when the cistern should have been full he finds the waste pipe open. He then closes the waste pipe and in another 3 minutes the cistern was full. In what time can the waste pipe empty the cistern when fill ?

- a) 8.21 min                      b) 8 min  
c) 8.57 min                      d) 8.49 min

23) One fill pipe A is 3 times faster than second fill pipe B and takes 32 minutes less than the fill pipe B. When will the cistern be full if both pipes are opened together?

- a) 6 min                      b) 8 min  
c) 12 min                      d) 10 min

24) Pipe A can fill a tank in 16 minutes and pipe B can empty it in 24 minutes. If both the pipes are opened together after how many minutes should pipe B be closed, so that the tank is filled in 30 minutes ?

- a) 21 min                      b) 24 min  
c) 20 min                      d) 22 min

25) Water flows into a tank which is 200 m long and 150 m wide, through a pipe of cross-section (0.3m x 0.2m) at 20 km/h. In what time will the water level be 12m ?

- a) 200 hrs                      b) 240 hrs  
c) 300 hrs                      d) 270 hrs

26) In what time would a cistern be filled by three pipes which diameters are 2 cm, 3 cm and 4 cm running together, when the largest alone can fill it is 58 minutes? The amount of water flowing in each pipe is proportional to the square of its diameter.

- a) 26 min                      b) 32 min  
c) 36 min                      d) 42 min

27) Two pipes A and B can fill a tank in 15 min and 20 min respectively. Both the pipes are opened together but after 4 min, pipe A is turned off. What is the total time required to fill the tank ?

- a) 15 min 20 sec.  
b) 16 min 40 sec.  
c) 13 min 10 sec.  
d) 14 min 40 sec.

28) Two pipes A and B can fill a tank in 16 hrs and 12 hrs respectively. The capacity of the tank is 240 liters. Both the pipes are opened simultaneously and closed after 2 hrs. How much more water need to fill the tank?

- a) 70 lit                      b) 170 lit  
c) 90 lit                      d) 190 lit

29) Two pipes A and B can separately fill a cistern in 60 min and 75 min respectively. There is a third pipe in the bottom of the cistern to empty it. If all the three pipes are







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simultaneously opened, then the cistern is full in 50 min. In how much time, the third pipe alone can empty the cistern ?

- a) 85 min                      b) 95 min  
c) 105 min                    d) 100 min

30) Pipe K fills a tank in 30 minutes. Pipe L can fill the same tank 5 times as fast as pipe K. If both the pipes were kept open when the tank is empty, how much time will it take for the tank to overflow ?

- a) 3 minutes                      b) 2 minutes  
c) 4 minutes                      d) 5 minutes

31) A tap can fill a tank in 6 hours. After half the tank is filled three more similar taps are opened. What is the total time taken to fill the tank completely ?

- a) 4 hrs 15 min  
b) 3 hrs 24 min  
c) 4 hrs 51 min  
d) 3 hrs 45 min

32) A Tank is normally filled in 9 hours but takes four hours longer to fill because of a leak in its bottom. If the tank is full, the leak will empty it in ?

- a) 32.5 hrs                      b) 29.25 hrs  
c) 30.30 hrs                    d) 31 hrs

33) The ratio of efficiencies of two filling pipes is 4 : 5. There is a third emptying pipe which efficiency is two third of the average

efficiency of first two filling pipes can empty a filled tank in 36 minutes. In how much time both the filling pipes can fill the tank when it is empty?

- a) 16 min                      b) 12 min  
c) 14 min                      d) 20 min

34) A tank is filled in eight hours by three pipes K, L and M. Pipe K is twice as fast as pipe L, and L is twice as fast as M. How much time will pipe L alone take to fill the tank ?

- a) 32 hrs                      b) 24 hrs  
c) 28 hrs                      d) 26 hrs

35) Two filling taps P and Q together can fill a tank with rate of 40 lit/min and 60 lit/min respectively in 8 min. If a waste tap can empty the filled tank in 32 min, then what is the rate of waste tap ?

- a) 34 lit/min                      b) 25 lit/min  
c) 22 lit/min                      d) 18 lit/min

36) 3 pipes when opened for 3 hours can fill 3 buckets. How many buckets can 2 pipes open for 2 hours approximately fill?

- a) 2/3 buckets                      b) 2 buckets  
c) 1 bucket                      d) 4/3 bucket

37) Pipes A and B can fill a cistern in 15 hours together. But if these pipes operate separately A takes 40 hours less than B to





fill the tank. In how many hours the pipe A will fill the cistern working alone?

- a) 60                      b) 20  
c) 40                      d) 15

38) One pipe can fill a tank three times as fast as another pipe. If together the two pipes can fill tank in 36 min, then the slower pipe alone will be able to fill the tank in ?

- a) 85 min                      b) 92 min  
c) 187 min                      d) 144 min

39) A tube can fill a cistern in 18hrs. After half the cistern is filled, three more similar tubes are opened. What is the total time taken to fill the cistern completely ?

- a) 9hrs 52min                      b) 10hrs 15 min  
c) 9hrs 45 min                      d) 10hrs 30min

40) A pipe can fill the tank in 12 hours. Because of a leak in the tank it took  $16\frac{1}{2}$  hours to fill the tank. If the tank is full, how much time will the leak take to empty it?

- a) 18hrs 51mins                      b) 18hrs 20min  
c) 18hrs 55min                      d) 18hrs 40min

