

GATE Aptitude Practice Questions Time and Work

- Q.No. 1** It was estimated that 52 men can complete a strip in a newly constructed highway connecting cities P and Q in 10 days. Due to an emergency, 12 men were sent to another project. How many number of days, more than the original estimate, will be required to complete the strip?
- (A) 3 days
(B) 5 days
(C) 10 days
(D) 13 days
- Q.No. 2** It would take one machine 4 hours to complete a production order and another machine 2 hours to complete the same order. If both machines work simultaneously at their respective constant rates, the time taken to complete the same order is _____ hours.
- (A) $\frac{2}{3}$ (B) $\frac{3}{4}$ (C) $\frac{4}{3}$ (D) $\frac{7}{3}$
- Q.No. 3** It takes two hours for a person X to mow the lawn. Y can mow the same lawn in four hours. How long (in minutes) will it take X and Y, if they work together to mow the lawn?
- (A) 60 (B) 80 (C) 90 (D) 120
- Q.No. 4** Two pipes P and Q can fill a tank in 6 hours and 9 hours respectively, while a third pipe R can empty the tank in 12 hours. Initially, P and R are open for 4 hours. Then P is closed and Q is opened. After 6 more hours R is closed. The total time taken to fill the tank (in hours) is _____.
- (A) 13.50 (B) 14.50 (C) 15.50 (D) 16.50
- Q.No. 5** Seven machines take 7 minutes to make 7 identical toys. At the same rate, how many minutes would it take for 100 machines to make 100 toys?
- (A) 1 (B) 7 (C) 100 (D) 700

- Q.No. 6** 1200 men and 500 women can build a bridge in 2 weeks. 900 men and 250 women will take 3 weeks to build the same bridge. How many men will be needed to build the bridge in one week?
- (A) 3000 (B) 3300 (C) 3600 (D) 3900
- Q.No. 7** X bullocks and Y tractors take 8 days to plough a field. If we halve the number of bullocks and double the number of tractors, it takes 5 days to plough the same field. How many days will it take X bullocks alone to plough the field?
- (A) 30 (B) 35 (C) 40 (D) 45
- Q.No. 8** Two machines M1 and M2 are able to execute any of four jobs P, Q, R and S. The machines can perform one job on one object at a time. Jobs P, Q, R and S take 30 minutes, 20 minutes, 60 minutes and 15 minutes each respectively. There are 10 objects each requiring exactly 1 job. Job P is to be performed on 2 objects, Job Q on 3 objects, Job R on 1 object and Job S on 4 objects. What is the minimum time needed to complete all the jobs?
- (A) 2 hours (B) 2.5 hours (C) 3 hours (D) 3.5 hours
- Q.No. 9** P, Q, R and S are working on a project. Q can finish the task in 25 days, working alone for 12 hours a day. R can finish the task in 50 days, working alone for 12 hours per day. Q worked 12 hours a day but took sick leave in the beginning for two days. R worked 18 hours a day on all days. What is the ratio of work done by Q and R after 7 days from the start of the project?
- (A) 10:11 (B) 11:10 (C) 20:21 (D) 21:20
- Q.No. 10** S, M, E and F are working in shifts in a team to finish a project. M works with twice the efficiency of others but for half as many days as E worked. S and M have 6 hour shifts in a day, whereas E and F have 12 hours shifts. What is the ratio of contribution of M to contribution of E in the project?
- (A) 1:1 (B) 1:2 (C) 1:4 (D) 2:1
- Q.No. 11** It takes 30 minutes to empty a half-full tank by draining it at a constant rate. It is decided to simultaneously pump water into the half-full tank while draining it. What is the rate at which water has to be pumped in so that it gets fully filled in 10 minutes?
- (A) 4 times the draining rate (B) 3 times the draining rate
(C) 2.5 times the draining rate (D) 2 times the draining rate

Answer Key

Q. No.	Ans.
1	A
2	C
3	B
4	B
5	B
6	C
7	A
8	A
9	C
10	B
11	A

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