

SALEM INSTITUTE OF BANKING

Time & Work and Pipes & Cistern

NAME: _____ DATE: _____ TIME: 25 min, MARKS: 25

Q1. Bharat and Priyanka can do a piece of work in 45 and 40 days respectively. They began the work together, but Bharat leaves after some days and Priyanka finished the remaining work in 23 days. After how many days did Bharat leave?

- (a) 7 days
- (b) 8 days
- (c) 9 days
- (d) 11 days
- (e) 13 days

Q2. A pipe can fill a tank in 15 minutes and another pipe in 10 minutes. A third pipe can empty the tank in 5 minutes. The first two pipes are kept open for 4 minutes in the beginning and then the third pipe is also opened. In what time will the tank be emptied ?

- (a) 3 min
- (b) 5 min
- (c) 2 min
- (d) Data inadequate
- (e) None of these

Q3. A and B can finish a job in 10 days while B and C can do it in 18 days. A started the job, worked for 5 days then B worked for 10 days and the remaining job was finished by C in 15 days. In how many days could C alone have finished the whole job ?

- (a) 30
- (b) 15
- (c) 45
- (d) 24
- (e) 54

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Q4. A is thrice as good a workman as B and therefore is able to finish a job in 30 days less than B. How many days will they take to finish the job working together?

- (a) $10\frac{1}{4}$
- (b) $11\frac{1}{4}$
- (c) $7\frac{1}{2}$
- (d) $7\frac{1}{4}$
- (e) $12\frac{1}{2}$

Q5. 9 men working 7 hours a day can complete a piece of work in 15 day. In how many days can 6 men working for 9 hours a day, complete the same piece of work ?

- (a) $6\frac{3}{4}$ days
- (b) 16 days
- (c) $6\frac{7}{4}$ days
- (d) $3\frac{5}{2}$ days
- (e) $3\frac{7}{2}$ days

Q6. Two pipes A and B can fill a tank in 24 minutes and 32 minutes respectively. If both the pipes are opened simultaneously, after how much time should B be closed so that the tank is full in 18 minutes ?

- (a) 6
- (b) 8
- (c) 10
- (d) 11
- (e) 13

Q7. Three pipes A, B and C are connected to a tank. A and B together can fill the tank in 10 hours, B and C together in 15 hours and C and A together in 12 hrs. In how much time will pipe fill the tank together (in hours) ?

- (a) 8
- (b) 12
- (c) 11
- (d) 10
- (e) 14

Q8. Twenty-four men can complete a work in sixteen days. Thirty-two women can complete the same work in twenty-four days. Sixteen men and sixteen women started working and worked for twelve days. How many more men are to be added to complete the remaining work in 2 days?

- (a) 48
- (b) 24
- (c) 36
- (d) 30
- (e) 32

Q9. There is a hole in a water tank which can empty it in 8 hours. A pipe is opened which fills 6 litre water per minute in tank and now tank is emptied in 12 hours. What is the capacity of the tank?

- (a) 8260 litre
- (b) 8660 litre
- (c) 8640 litre
- (d) 8620 litres
- (e) 8460 litres

Q10. Krishna can do a work in 10 days while Mohan can do the same work in 20 days. They started work together. After 3 days Krishna left the work and Mohan completed it. How many days Mohan worked alone more than the number of days required when both works together to complete the work ?

- (a) $4\frac{1}{3}$
- (b) $3\frac{1}{4}$
- (c) $2\frac{3}{5}$
- (d) $3\frac{2}{3}$
- (e) None of these

Q11. A and B can separately complete a piece of work in 20 days and 30 days respectively. They worked together for some time, then B left the work. If A completed the rest of the work in 10 days, then B worked for

- (a) 6 days
- (b) 8 days
- (c) 12 days
- (d) 16 days
- (e) 5 days

Q12. The work done by a woman in 8 hours is equal to the work done by a man in 6 hours and by a boy in 12 hours. If working 6 hours per day 9 men can complete a work in 6 days, then in how many days can 12 men, 12 women and 12 boys together finished the same working 8 hours per day?

- (a) $2\frac{1}{2}$ days
- (b) $1\frac{1}{2}$ days
- (c) $3\frac{1}{2}$ days
- (d) None of these
- (e) $1\frac{2}{3}$ days

Q13. A pipe can fill a cistern in 12 min and another pipe can fill it in 15 min but a third pipe can empty it in 6 minutes. The first two pipes are kept open for 5 minutes in the beginning and then the third pipe is also opened. Time taken to empty the cistern is:

- (a) 38 minutes
- (b) 22 minutes
- (c) 42 minutes
- (d) 45 minutes
- (e) 60 minutes

Q14. A cistern has two inlet taps (which fill it in 12 minutes and 15 minutes, respectively) and an exhaust tap. When all the three taps are opened together, it takes 20 minutes to fill an empty cistern. How long will the exhaust tap take to empty it?

- (a) 20 minutes
- (b) 16 minutes
- (c) 12 minutes
- (d) 10 minutes
- (e) 14 minutes

Q15. 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

- (a) 10 hours
- (b) 12 hours
- (c) 15 hours
- (d) $15\frac{1}{2}$ hours
- (e) 17 hours

16. A contractor hires Amitabh Arora to complete the work and Amitabh can do the work in 25 days. Amitabh worked for 5 days and after that Bindu Singh completed it in 20 days. In how many days will Amitabh and Bindu together finish the work?

A $25\frac{1}{2}$ days

B 25 days

C 15 days

D $23\frac{1}{2}$ days

E None of these

17. Arnab is twice as fast as Bhanu, and Bhanu is one-third as fast as Chandu. If together they can complete work in 30 days, in how many days can Arnab, Bhanu and Chandu do the work respectively?

A 60, 180, 240

B 90, 180, 120

C 90, 180, 60

D 90, 60, 180

E None of these

18. Vijay can do a piece of work in 24 days. Rakesh can do the same work in 30 days and Vinod in 40 days. Vijay and Vinod worked for 4 days and handed it to Rakesh. Rakesh worked for some days and handed it again to Vijay and Vinod 6 days before completing the work. For how many days did Rakesh work?

A 5 days

B 10 days

C 8 days

D 6 days

E None of these

19. If three men and two women can do the same piece of work as two men and three women, then what is the ratio of efficiency of men and women?

A 2 : 1 B 1 : 2 C 1 : 1 D Can't be determined E None of these

20. A can finish a work in 5 days and B takes 4 days to do the same work. If the work is increased by 8 times, How many days will it take for both of them to finish the work if they work together?

A 10 days B 15 days C 25 days D 20 days E None of these

21. A can complete a task in 12 days. B can complete the same task in 18 days. If A and B work on this same task on alternate days starting with A, in how many days do they finish the entire task?

A 11.8 B 14.33 C 11 D 8 E None of these

22. A father can work at the same rate as that of his two sons working together. If one son can complete a job in 6 days and the other son can complete the same job in 12 days. Find the time taken by father to complete the job.

A 2 B 5 C 9 D 7 E 4

23. If Ajay completes a project in 7 days and Kajol alone completes the same project in 8 days, then in how many days will they complete the project if they both work together?

A 2.73 B 2.57 C 3.73 D 5.55 E None of these

24. A and B can do a work in 12 days. B can do the same work in 18 days. In how many days A can complete the $\frac{2}{3}$ of the same work?

A 36 Days B 24 Days C 16 Days D 27 Days E None of these

25. A can do a piece of work in 20 days and B can do the $\frac{1}{7}$ th of the same work in 5 days. In how many days together they can complete the $\frac{11}{14}$ th of the total work?

A $\frac{140}{11}$ days B 15 Days C 20 Days D 10 Days E None of these