ARITHMETIC ASSIGNMENT 4- TIME AND WORK

1) A takes 10 days to complete a work and B takes 25 days to complete a work . In how many days can A and B together complete the work

2) Hunny Malhotra can do a work in 10 days . After working for 4 days he was joined by Abhinav Tyagi . If they complete the remaining work in 2 more days. In how many days Abhinav alone can complete the work

3)Aashna, Risitha, Vineet can do a work in 15 days. After all three worked for 2days , Aashna left , Risitha and Vineet worked for 10 more days and then Risitha left .. Vineet worked for another 40 days and completed the work . In how many days Aashna alone complete the work If Vineet alone can complete it in 75 days

4) Gee-k can do a piece of work in 20 days and Rishi can do the same in 30 days .. They finished the work with the help of Prateek in 8 days .. If they earned a total of 5550 rs . what is share of prateek.

5) Two painters, A and B are under contract to paint a certain wall every day. Their rate of painting is constant and never varies, even from day to day. On day 1, they notice that they can paint the wall together in 'x' minutes. The next day, A does not turn up and B works alone. B notices that he takes 5 minutes more than they had taken the previous day to paint the wall. On day 3, B does not turn up. A calculates the time he took to paint the wall alone and tells B that he had taken 40 minutes more than B had taken on day 2. What is the value of x?

6) A and B , working together can build a wall , 221 m long in 100/9 days . If they work on alternate days , with A starting the work , it takes 89/4 days to build the same wall . If A and B work together and build a similar wall but of twice the length and earn a total of Rs. 1800 for it . then B's Share of the earnings will be

7) Gopal can complete a piece of work in 6 hrs, Hemant in 3 hrs, Indu in 2 hrs, Jasdeep in 1 hr 30 minutes, Keira in 1 hr 12 minutes and Lolita in 1 hr. These 6 people make two teams, Humpy and Dumpy such that one team has twice the number of people than the other. Team Humpy takes twice the time to complete the work as compared to the team Dumpy. How many such pairs of Humpy and Dumpy are possible?

8) To complete a certain job, A, working alone, takes twice as long as B and C together take, whereas B, working alone, takes 11 times as long as A and C together take. If all the three of them together can complete the job in four days, find the time taken by B, working alone, to complete the job.

9) 2 men and 4 boys can complete a piece of work in 8 days . 4 men and 2 boys can complete the same work in 6 days . How much time does a man and a boy working together require to complete the work

10))A can do a piece of work in 24 days. If B is 60% more efficient than A , then the no of days required by B to do the same piece of work?

11) A man builds 1/8th part of a wall every day . Out of the length of the wall built per day , 20% falls off at the end of the day till the wall is completely built . In how many days can he complete the construction of the wall ?

12) The ratio of efficiency of a is to c is 5:3. the ratio of number of days taken by b is to c is 2:3. a takes 6 days less than c,when a and c completes the work individually.b and c started the work and left after 2 days .the number of days taken by a to finish the remaining work is

13) A and B working alone can do a certain piece of work in 40 days and 120 days respectively . A and B start working together on that work but after having worked for 10 days, additional work came in . The additional work is such that B would take 40 days working alone to complete it . In order to cope with the additional load , C is induced and the remaining work is finished in 5 days . Find the number of days that C alone would take to complete the original work.

14) On a certain Day , Ram works at 11/7 th of his usual rate of doing work and completes a work 28 minutes earlier than the usual time required . Had Ajay worked at 7/11 th of usual rate of doing work , then the time taken by him to complete the work would have been how much more than the usual time required ?

15) Six men and fourteen women can complete a work in 5 days ,whereas two men and three women can complete one-fourth of the same work in four days . If one man and two women take up and complete the same work , earning a total wage of Rs. 11791 for the same , What is the total share of the two women in this amount.

16) Sunit,Arun and Pavan were in the same project for 30 days.In the course of work all of them remained absent for few days.Pavan remained 10 days more absent than Arun remained and Sunit did one-third of the total work.How many more days did Pavan remained absent than Sunit?

17) A piece of work can be done by 11 men and 16 boys in 2 days . The same work can be done by 5 men and 11 boys in 4 days . In how many days can 1 man and 4 boys complete the same work

18) A group of 15 workers take 9 hours to plough a field . If the group starts the work at 9:00 AM . and one worker per hour is then added to the group , starting from 12:00 noon , at what time will the work get completed

19) Pipe A can fill a cistern in 2 hours. Pipe B can fill the same cistern in 6 hours. On account of a leak that has developed at the bottom of the tank it takes two and a half hour for an empty tank to overflow when both the pipes are kept open. How long will the leak at the bottom take to empty the tank.

20) 3 pipes can fill a reservoir in 10,15 and 20 hours respectively . If three taps are opened one after another in the given order . with a certain fixed time gap between them . The reservoir fills in 5 hours . find the time gap

21) Aman, Baman and Chaman can finish a job working alone in 15, 20 and 25 days respectively. However, while working with somebody the efficiency of Aman, Baman and Chaman reduces by 30%, 20% and 50% respectively. If none of them is allowed to work for three consecutive days, then what is the maximum possible fraction of the job that they can complete in four days.

22) Arvind and Swarnali are team mates and they can do a project in certain number of days.If Arvind is on holiday for x days,then they take y more days to complete the work while if Swarnali is on holiday for x days,then they take z more days to complete the same project.Then

(a)y, x/2,z are in AP (b) y, x/2,z are in GP (c)1/x=1/y+1/z (d) Cannot be determined (e) None

23) A , B and C had to paint three identical fences . On the first day , only A turned up for work and he completed the work only on the first fence taking m hours . On the second day , all three of them turned up for work and they completed the work only on the second fence taking (m-4) hours . On the third day , B and C turned up and they completed the work on the third fence taking (m+5) hours . What is the value of m .

24) B is twice as efficient as A. A does a piece of work in 15days. A started the work and B joined a few days later. They completed the work in 11 days. For how many days they worked together?

25) If 15 men or 24 women or 36 boys can complete a piece of work in 12 days by working 8 hours a day, then how many men must be required to work with 12 women and 6 boys to complete another piece of work 9/4times the previous piece of work in 30 days by working 6 hours a day?

26) In one-half the time, A can produce three times as much work as B and B can do in twice the time 1/3 as much work as C. If C does a job in 1 hour, how many hours will it take A to do the same job?

27) A swimming pool is fitted with 3 pipes. The first two pipes working simultaneously fill the pool in the same time as the third pipe alone. The second pipe alone fills the pool 5 hours faster than the first pipe & 4 hours slower than the third pipe. In what time will the second & third pipes together fill the pool

28) A certain construction job could Finished in 150 days if 50 men are working full time. 60 men started working on the job and after 20 days, 20 more men are added. But after 80 days 50 men quit the job. How long could it take for them to finish the job?

29) A tank has four inlet pipes such that each inlet pipe while working dependently can fill the tank in 4 hours. The tank also has two outlet pipes such that each outlet pipe while working independently can empty the tank in 3 hours. If all the six pipes are opened simultaneously, then in how much time will the tank get filled completely?

30) Ajay, Bhavan and Charan work together to complete a piece of work. Working individually, Ajay, Bhavan and Charan take twice the time, 2 hours more and 5 hours more respectively to complete the work than if they work together. The time taken by Charan to complete the work is twice thetime taken by two other workers, Dinesh and Eswar, to complete the work working together. Find the time taken by Charan, Dinesh and Eswar, working together to complete the work (in hours).

31) A group of workers was put on a job. From the second day onwards, one worker was withdrawn each day. The job was finished when the last worker was withdrawn. Had no worker been withdrawn at any stage, the group would have finished the job in 2/3rd the time . How many worker were there in the Group ?

32) X is 3 times as fast as Y and is able to complete a piece of work in 40 days less than Y. The time in which they, working together, can complete the work in.

33) A takes 4 more hours to complete a work than A and B combined. B takes 9 more hours to complete than A and B combined. The time taken to Complete the work if done combined by A and B

34) Two workers are arranged to do a job. The 2nd worker starts the job 2 hours after the 1st worker starts. 5 hours after the 2nd worker starts, the amount of work still left is 9/20. When the job is completed, it turns out that the 1st worker has done 60% of the job. How much time can each of the worker individually do the job in?

35) An Italian man can finish job P and job R in 10 days and 20 days respectively. A Spanish man can finish job Q and job R in 15 days and 10 days respectively. On the first day, two Italian men begin work on job P and a day later three Spanish begin work on job Q. What is the least timerequired to complete all the three jobs?

ANSWER KEYS

1. 50/7
2. 5
3. 30
4. 1850
5. 15
6. 1000 rs
7. 3
8. 48
9. 144/7
10. 15
11. 9.8
12. 6
13. 6
14. 44
15. 1814 rs
16. CBD
17. 16.4
18. 5:00 PM
19. 3.75
20. 1/2 hour
21. 34%
22. y , x/2 , z are in AP
23. 10