



DEFENCE MANIA

EDUTECH PVT. LTD

Time and work

1. M can do a work in 18 days, N in 27 days and O in 9 days. M and N starts working together and after 2 days O joins them. What is the total number of days taken to finish the work?
(A) 5 days (B) 2 days
(C) 6 days (D) None of these
2. A and B can do a piece of work in 24 days and 30 days respectively. They began to work together but A left after 4 days. In how many more days would be alone complete the remaining work?
(A) 22 days (B) 64 days
(C) 15 days (D) None of these
3. P can finish 33.33% of a work in a day. Q can do 16.67% of the work in a day. Both of them together will finish the work in how many days?
(A) 2 days (B) 20 days
(C) 1.5 days (D) 4 days
4. Ambika and Arun can do a work in 13 days. If Ambika alone can do it in 39 days, Arun can do it how many days?
(A) 26 day (B) 19.5 day
(C) 6.5 day (D) 20 day
5. If A can do a piece of work in 15 days, B can do it in 45 days, C can do it in 60 days. If first day of work starts with A and B, second day of work done by B and C and third day of work done by C and A, this way of work is continue till the work is completed. By the way how many days the work will complete?
(A) $15\frac{1}{5}$ days (B) $13\frac{3}{4}$ days
(C) $14\frac{1}{3}$ days (D) $16\frac{2}{3}$ days
6. A work can be done by 60 workers in 50 days. They start the work together but 4 workers dropout every 10 days. In how many days would the work be completed now?
(A) 60 days (B) 52.5 days
(C) 54 days (D) 60.5 days
7. A work can be done by 40 workers in 30 days. They start the work together but 5 workers dropout every 10 days. In how many days would the work be completed now?
(A) 36 days (B) 32 days
(C) 35 days (D) 40 days
8. If the efficiency of A and B is 3 : 2. If A can complete the work in 55 days, then in how much time will both complete the work?
(A) 22 days (B) 33 days
(C) 110 days (D) 27.5 days
9. Ram and Shyam can fence the garden in 24 and 16 hours respectively but if they work together they will fence 96 m less barbed wire per hour and complete the fencing in 12 hrs. Find the length of the barbed wire used for fencing completely the garden?
(A) 2304 m (B) 4608 m
(C) 3068 m (D) 1017 m
10. A and B can finish a job in 7 and 16 days respectively. If starting with A they start to work in alternate days, then in how many days will the work get finished?
(A) $9\frac{4}{7}$ days (B) $7\frac{3}{16}$ days
(C) $8\frac{2}{7}$ days (D) $54/7$ days
11. A man completes the work in 10 days and the women can complete the work in 20 days. In how many days the man with 60% efficiency and women with 50% efficiency working together can complete the work?
(A) 520/17 days (B) 300/17 days
(C) 200/17 days (D) 100/13 days
12. A and B can do a piece of work in 15 days, B and C in 20 days, C and A in 24 days. How long will they take if all three work together?
(A) $13\frac{13}{19}$ (B) $12\frac{11}{18}$
(C) $13\frac{10}{19}$ (D) None of these

13. A can do a piece of work in 15 days and B can do the same piece of work in 20 days. They start the work together, but after 4 days A leaves B will do the remaining piece of work in.
(A) $35/3$ days (B) $33/3$ days
(C) $31/3$ days (D) $32/3$ days
14. If 10 persons can dig 4 feet trench in 12 days, then how many days will 8 persons take to 6 feet trench?
(A) 25.5 days (B) 22.5 days
(C) 20.5 days (D) 24.5 days
15. A can complete a work in 'T' days and B can complete it 'S' day. How many days will it take to complete the work if both A and B work together?
(A) $TS/T+S$ (B) $T+S/TS$
(C) T/S (D) None of these
16. Maan and Ram working together do a piece of work in 15 days. Ram alone can do it in 20 days. Maan alone will do the work in?
(A) 45 days (B) 26 days
(C) 29 days (D) None of these
17. 60 men can complete a piece of work in 25 days. In how many days will 24 men complete the same piece of work?
(A) 60.5 days (B) 62.5 days
(C) 61.5 days (D) 62.3 days
18. A man can do a work alone in 12 days. With the help of a day he can do the same work in 9 days. If they get ₹ 1244 for that work, what is the share of that boy?
(A) ₹ 411 (B) ₹ 423
(C) ₹ 396 (D) None of these
19. If 3 men or 4 women can complete a work in 45 days, how long will 9 men and 6 women take to complete it?
(A) 12 days (B) Cannot be determined
(C) 9 days (D) None of these
20. P can do a work in 50 days and Q can do the same work in 40 days. They worked together for 10 days and then P goes away. In how many days will Q finish the rest of work?
(A) 27.5 days (B) 24 days
(C) 22 days (D) None of these
21. A can do a work in 8 days and B can do the same work in 12 days. The contract for the work is ₹ 1995. How much shall B get if both of them work together?
(A) ₹ 888 (B) ₹ 798
(C) None of these (D) ₹ 1197
22. P Can complete a work in 20 days, Q in 24 days and R in 30 days. All of them began the work together, but P had to leave the work after 3 days of the start and Q 3 days before the completion of the work. How long did the work last?
(A) 13 days (B) 17 days
(C) 11 days (D) None of these
23. A can do a piece of work in 6 days and B can do it in 4 days separately. How many days would it take for both A and B to finish the same work together?
(A) $12/7$ days (B) $12/15$ days
(C) $24/10$ days (D) $11/5$ days
24. 3 men or 14 women can do a piece of work in 12 days. In how many days 6 men and 28 women do the same piece of work?
(A) 3 day (B) 4 day
(C) 7 day (D) 6 day
25. If A takes 8 days to complete a work and B takes three fourth of the time A takes to finish the work alone. Find the days required for both them to complete the work if working together?
(A) $24/7$ days (B) $27/4$ days
(C) $22/7$ days (D) $32/7$ days
26. A working alone would take 8 hrs more to complete a job as compared to when working along with B. B working alone would take 18 hrs more compared to working along with A. If they work together then find the time taken by them to complete the task?
(A) 12 hr (B) 9 hr
(C) 15 hr (D) 16 hr
27. 6 men take 14 days to complete a work. They worked for 4 days, after which 2 men left the work. In how many days will the remaining 4 men complete the work?
(A) 25 days (B) 13 days
(C) 17 days (D) 15 days
28. 30 men can complete the work on 15 days and 5 men left after 8 days. Some women were replaced to complete the remaining work. If work should be completed in agreed time, then how many women were being replaced? (Efficiency of man and woman is same).
(A) 5 women (B) 7 women
(C) 8 women (D) 4 women
29. Shyam is 40% more efficient than Ravi. Ravi takes 10 days more to complete the work alone than Shyam takes to complete the work alone. If both work together, then in how many days work will be completed?
(A) $16\frac{3}{11}$ days
(B) $19\frac{3}{11}$ days
(C) $14\frac{7}{12}$ days
(D) $23\frac{3}{11}$ days

30. A and B together can complete a work in 24 days. If both start the work together and B does $\frac{3}{4}$ th of the total work, then in how many days will A alone complete the entire work?
(A) 96 days (B) 54 days
(C) 72 days (D) 48 days
31. Parul can type a book in 36 days while Ashmita can type the same book in 12 days. If both of them started typing the book together, then in three days, how much percentage of the book shall be completed?
(A) 25% (B) 33.33%
(C) 50% (D) 66.66%
32. Sarika can do $\frac{3}{7}$ th part of a job in 18 days. If Vinay is 1.5 times as efficient as Sarika, then in how many days will Vinay complete the job?
(A) 35 days (B) 21 days
(C) 28 days (D) 24 days
33. A & B working alone 9 hours a day can complete a job in 14 days and 12 days respectively. In how many would they finish the job if they work together 6 hours per day?
(A) 126/13 days (B) 88/13 days
(C) 111/13 days (D) 10 days
34. If 10 men working 16 hours per day can complete a piece of work in 21 days. How many hours per day must 24 men work to complete the same job in 14 days?
(A) 12 hr (B) 20 hr (C) 10 hr (D) 15 hr
35. A and B together can complete a work in 6 days. They start together. But, after 2 days, B left the work. If the work is completed after 5 more days, B alone could do the work in
(A) 30 days (B) 4 days
(C) 8 days (D) None of the above
36. Siya can do a work in eight days. Drishti can do the same work in twelve days while Payal can do the same work in thirteen days. If they are paid Rs. 2225 for doing the same work together, then what will be the share of Siya (in Rs.)?
(A) Rs. 975 (B) Rs. 650
(C) Rs. 600 (D) Rs. 112
37. Paras can complete $\frac{1}{18}$ th of a task in three days. Manasvi can do $\frac{1}{3}$ rd of the same task in 9 days. If they start doing the task together and after completion of 50% of the task, only Paras completes the remaining task alone, then what would be the total number of days taken to complete the task?
(A) 27 days (B) 11 days
(C) 36 days (D) 45 days
38. A and B can complete a work together in 8 days and the sum of the work done by them individually is 36 days. Which of the following can possibly represent the number of days taken by A and B individually to complete the work?
(A) 18 day, 18 day (B) 16 day, 20 day
(C) 12 day, 24 day (D) 15 day, 21 day
39. A and B together can complete a job in 27 days. B alone takes 81 days to complete the job. In how many days shall A take, if he has to complete the job all alone?
(A) 29 days (B) 54 days
(C) 40.5 days (D) 48 days
40. A work was assigned to me, my sister and my brother. I did 10% of the work, my sister did 20% of the remaining work and then my brother did 25% of the remaining. What percentage of the work is yet to be completed?
(A) 45% (B) 54% (C) 48% (D) 55%
41. A and B can do work in $m^2 n^2$ days B can do it alone in n^2 days how many days A can do alone it?
(A) $\frac{nm^2}{(1-m^2)}$ (B) $\frac{n^2 m}{(1-m^2)}$
(C) $\frac{n^2 m^2}{(1+m^2)}$ (D) None of these
42. A piece of work can be done by 12 men and 10 women in 12 days or 6 men and 8 women in 20 days. It can be done by 36 men and 12 women in how many days?
(A) 5 days (B) 4 days
(C) 8 days (D) 5.5 days
43. 16 male and 8 female together can complete a piece of work in 3 days. Work done by a male in one day is double the work done by a female in one day. If 8 male and 4 female started working together and after 2 days, 4 male left and 4 new female joined, in how many more days will the work be completed?
(A) 4 days (B) 8 days
(C) 5 days (D) 3 days
44. 8 men and 15 women can complete a piece of work in 12 days while 10 men and 8 women can complete the same work in 15 days. Then find 9 men and 15 women to complete the same work in?
(A) $8\frac{6}{7}$ days (B) $9\frac{11}{12}$ days
(C) $13\frac{1}{4}$ days (D) $11\frac{7}{15}$ days
45. 8 men and 6 women can complete the work in 18 days. How many days it will take to complete the same work by 2 men and 4 women, if 12 women can complete work in 16 days?
(A) 1432/31 days (B) 1214/31 days
(C) 1225/31 days (D) 1152/31 days

46. Chitra can do the work in 36 days and Binu is half efficient than Chitra. Both started the work and completed $\frac{5}{8}$ of total work and the remaining work was completed by Nirmala. Nirmala can complete total work in 48 days. Then how many days taken to complete the work?
(A) 38 days (B) 41 days
(C) 35 days (D) None of these
47. Latha and Githa together can complete a piece of work in 6 days. If Latha alone can complete the same work in 18 days, in how many days Githa alone can complete the same work?
(A) 14 days (B) 9 days
(C) 10 days (D) 8 days
48. Anu can complete a piece of work in 12 days while Banu can complete the same work in 16 days. They work together for 6 days. Then Anu quits the work. In how many days will Banu now be able to finish the remaining work?
(A) 3 days (B) 2 days
(C) 4 days (D) 5 days
49. Raman and Naman can do a piece of work in 25 days and 50 days respectively. If they start working together and a person Aman alone does the work for last 4 days then work is done in 14 days. Find in how many days Aman can do the work alone?
(A) 12 days (B) 10 days
(C) 16 days (D) 8 days
50. A certain work is completed when Sarvesh worked alone for 20 days and left, followed by Rajesh working alone for 24 days and leave, and finally Senthil finishing it in 10 days. If the ratio of work alone by Sarvesh, Rajesh and Senthil is 7:14:10 respectively, then what is the ratio of efficiencies of Sarvesh, Rajesh and Senthil?
(A) 17: 15: 21
(B) 16: 15: 21
(C) 21: 35: 60
(D) 18: 15: 23
51. 48 men can build a house in 8 months. How many men will be able to do it in 6 months?
(A) 64 men (B) 56 men
(C) 48 men (D) 72 men
52. 9 children can complete a piece of work in 360 days. 18 men can complete the same work in 72 days and 12 women can complete the same piece of work in 162 days. In how many days can 4 men, 12 women and 10 children together complete the work?
(A) 54 days (B) 81 days
(C) 46 days (D) 75 days
53. Two persons can do the work in 15 hours, they started work and worked for 3 hours. After that 3rd person came, whose efficiency is $\frac{3}{5}$ th of two people's efficiency together; How long it will take for all to complete the total work?
(A) 7 hrs (B) 10.5 hrs (C) 12 hrs (D) 16 hrs
54. Ram does $\frac{3}{5}$ of a work in 15 days then he calls Shyam and they together finish the remaining work in 4 days. How long Shyam alone would take to do the whole work?
(A) $16\frac{2}{3}$ days (B) $17\frac{2}{3}$ days
(C) $15\frac{2}{3}$ days (D) $11\frac{1}{2}$ days
55. If 10 men or 20 girls can made 260 articles in 10 days. Then how many articles made by 8 men and 4 girls in 20 days?
(A) 410 (B) 420
(C) 510 (D) None of these
56. A can do a piece of work in 24 days, while B can do it in 30 days with the help of C they can finish the whole work in 10 days. How much time is required by C to complete the work alone?
(A) 41 days (B) 40 days
(C) 30 days (D) 120 days
57. A and B can do a piece of word in 20 days and 15 days respectively both begin together but after 7 days A leave the work. after how many days B complete remaining work?
(A) $1\frac{3}{4}$ days (B) $2\frac{3}{4}$ days
(C) $3\frac{3}{4}$ days (D) $5\frac{3}{4}$ days
58. If 30 men complete a work in 32 days then 12 men complete the same work in?
(A) 81 days (B) 24 days
(C) 80 days (D) 11 days
59. A and B can do a piece of work in 20 days and 30 days respectively. Both begin together but after a certain time a leaves off. In this case B finished the remaining work in 10 days. After how many days did A leave?
(A) 8 days (B) 6 days
(C) 4 days (D) 2 days
60. If 30 men complete a work in 16 days then 15 men do the same work in?
(A) 30 days (B) 12 days
(C) 32 days (D) 14 days
61. 15 men can do a work in 16 days, then in how many days 12 men can complete the same work?
(A) 20 days (B) 21 days
(C) 25 days (D) 36 days

62. P can do a certain work in 24 days Q is 60% more efficient than P. How many days will P and Q together takes to do the same job?
(A) 12 day (B) 10 days
(C) 11 days (D) None of these
63. A and B together can do a piece of work in 12 days and A alone can do it 18 days. In how many days can do B alone half work?
(A) 12 days (B) 36 days
(C) 18 days (D) 29 days
64. Rahul can do a work in 16 days. In how many days will the work be completed by Modi, if the efficiency of Modi's 60% more than that of Rahul?
(A) 16 days (B) 10 days
(C) 11 days (D) 22 days
65. Kush can do a pice of work in 15 days with the help of Kush and Ankur can do it in $6\frac{2}{3}$ days. Ankur can do it alone in?
(A) 15 days (B) 12 days
(C) 16 days (D) 13 days
66. M and N can do a job together in 24 days. M is 2 times as efficient as N. In how many days can N alone complete the work?
(A) 36 days (B) 71 days
(C) 72 days (D) 18 days
67. A can do a piece of work in 32 days. If B is 60% more efficient than A, then the number of days required by B to do the same piece of work is:-
(A) 15 days
(B) 24 days
(C) 20 days
(D) None of these
68. A and B can do a piece of work in xy days and A alone can do it x days. In how many days can B alone do it?
(A) xy days (B) $\frac{1+y}{x}$ days
(C) $\frac{xy}{(1-y)}$ days (D) None of these
69. Rohit and Mohit can do a piece of work in 72 days, Mohit and Rohan can do it in 120 days, and Rohit and Rohan can do it in 90 days. When Rohit, Mohit and Rohan work together, how much work in finished by them in 4 days?
(A) $\frac{2}{15}$ (B) $\frac{1}{15}$
(C) $\frac{3}{17}$ (D) None of these
70. Ram and Shyam together do a piece of work in 12 days and Ram alone can do it in 36 days. In how many days Shyam alone do it?
(A) 18 days (B) 22 days
(C) 21 days (D) 23 days
71. M and N can do a work in 8 days, N and O can do the same work in 14 days and M, N, O complete it in 6 days. In how many days can M and O finish it?
(A) $\frac{168}{23}$ days (B) $\frac{17}{3}$ days
(C) $\frac{11}{3}$ days (D) None of these
72. 4 boys and 6 girls can do a work in 50 days. 2 boys and 9 girls can do work in?
(A) 26 days (B) 15 days
(C) 25 days (D) 21 days
73. A, B and C can work together for ₹ 1540. A and B together are to do $\frac{7}{11}$ of the work. The share of C should be?
(A) ₹ 570 (B) ₹ 960 (C) ₹ 560 (D) ₹ 460
74. The daily wages of M and N respectively are ₹ 3.50 and ₹ 2.50. When M finishes a certain work, he gets a total wage of ₹ 126. When N does the same work, he gets a total wage of ₹ 150. If both of them do it together what is the cost of the work?
(A) ₹ 132 (B) ₹ 133 (C) ₹ 135 (D) ₹ 122
75. M can do a piece of work in 15 days and N can do it in 18 days. They work together for 3 days. Then N leaves and M alone continues. 2 days after that K joins and the work is completed in 2 days more. In how many days can K do it, if he works alone?
(A) $5\frac{15}{32}$ days
(B) $15\frac{5}{33}$ days
(C) $5\frac{5}{33}$ days
(D) None of these
76. Two workers A and B working together complete a job in 6 days. If A worked twice as efficiently as he actually did the work would have completed in 4 days. find the time for A to complete the job?
(A) $9\frac{6}{7}$ days (B) $7\frac{1}{7}$ days
(C) $6\frac{2}{7}$ days (D) None of these
77. Five weaver Amar, Bipin, Chandan, Dev and Esha can Weave 1400 clothes in 70 days working alternatively. Find the minimum possible number of clothes that can be weave in two days by working together?
(A) 100 clothes (B) 300 clothes
(C) 200 clothes (D) 600 clothes

78. Amar can complete a work in 10 days, Bipin in 20 days and Chandan in 30 days. All of them began the work together, but Amar leaves the work after 2 days of start, and Bipin 3 days before the completion of work. In how many days work will complete?
- (A) $12\frac{1}{5}$ Day (B) $13\frac{1}{5}$ Day
(C) $11\frac{2}{5}$ Day (D) $9\frac{2}{5}$ Day
79. Ramesh, Satish and Ankit working together can complete a work in 15 days. Efficiency of satish is 50% More than Ramesh. Ratio of Efficiency of Satish and Ankit is 3:2. Ramesh and Satish started and worked for 4 days. Satish and Ankit worked for next two days. After this they all works together but Ramesh left the work one day before completion of work. How many days Ramesh worked?
- (A) $11\frac{1}{7}$ Days (B) 12 Days
(C) 13 Days (D) $12\frac{1}{2}$ Days
80. Vikas gets Rs.350 for every day that he works. If he earns Rs.9800 in a month of 31 days, for how many days did he work?
- (A) 25 days (B) 30 days (C) 24 days (D) 28 days
81. A can do a job in 20 days, B in 30 days and C in 60 days. If A is helped by B and C every third day. How long will it take for them to complete a job?
- (A) 4 days (B) 12 days
(C) 15 days (D) 18 days
82. Ram and Shyam can do any work in 12 days and 24 days respectively. Ram starts working and after a few days Shyam also starts working and in this way the whole work is finished in 10 days. After how many days did Shyam start working with Ram?
- (A) 7 days (B) 8 days
(C) 6 days (D) 10 days
83. A, B and C under take to do a work for Rs.660. If A and B together do $\frac{8}{11}$ of the work and rest is done by C alone. How much amount should C get?
- (A) Rs.200 (B) Rs.160
(C) Rs.180 (D) Rs.190
84. Two men undertake to do a piece of work for Rs 2800. The first men alone can do this work in 7 days, while the second man alone can do this work in 8 days if, with the help of another third person they complete the total work in 3 days, how should the money be divided?
- (A) Rs.1200, Rs.1100, Rs. 500
(B) Rs.1200, Rs.525, Rs. 550
(C) Rs.1200, Rs.1050, Rs. 550
(D) Rs.500, Rs.525, Rs. 375
85. A, B, C can complete the piece of work in 15, 30, 40 days respectively. They started the work together. A left 2 days before the completion and B left 4 day before the completion of the work. In how many days work is completed.
- (A) $10+(2/15)$ days (B) $7+(3/10)$ days
(C) $10+(7/30)$ days (D) $7+(2/5)$ days
86. A and B together can do a piece of work in 20 days, B and C together can complete same work in 15 days, C and A together can complete same work in 25 days. If they all work together for 4 days, then what % of work remained?
- (A) 68.66% (B) 33.33%
(C) 32.33% (D) 64.25%
87. P does half as much work as Q in one sixth of the time. If together they take 15 days to complete a work, how much time shall Q take to do it alone?
- (A) 65 days (B) 68 days
(C) 60 days (D) 70 days
88. Three typist Abhishek, Nitin and Ritik working together 6 hours per day can type 1350 pages in 30 days. In a day Nitin types as many pages more than Abhishek as Ritik types as many pages more than Nitin. The number of pages typed by Abhishek in 3 hours equal to the number of pages typed by Ritik in 2 hours. How many pages Ritik types in each hour?
- (A) 3 Page/hour (B) 4 Page/hour
(C) 6 Page/hour (D) 2 Page/hour
89. Rahim, Kabir and Tulsidas can complete a piece of work in 15, 30 and 40 days respectively. They started the work together and Rahim left 2 days before the completion of work and Kabir left 4 days before the completion of the work. In how many day was the work completed.
- (A) $10\frac{2}{15}$ day (B) $10\frac{6}{13}$ day
(C) $10\frac{2}{5}$ day (D) $11\frac{4}{5}$ day
90. A and B together can complete a piece of work in 13 days. B and C together can complete in 39 days. A worked for 4 days, B worked for 7 days, C complete the remaining work in 11 days. In how many days C alone complete the whole work?
- (A) $17\frac{2}{3}$ (B) $17\frac{7}{9}$
(C) $17\frac{1}{6}$ (D) None of these
91. Abhishek and Vipin can do a piece of work in 21 days and 24 days respectively. They start the work together and after some day Abhishek leaves the work and Vipin complete the remaining work in 9 days. How many Rupees Vipin will get? If total wages of work is Rs.3333.

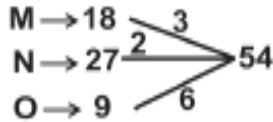
(A) Rs.2222
(C) Rs.1651.50

(B) Rs.1111
(D) Rs.2100

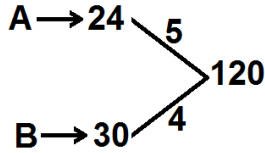
(A) 1500 page
(C) 1600 page

(B) 1400 page
(D) None of these

92. Aman and Babul have to write 810 and 900 pages respectively in the same time period. But Aman completes his work 3 days ahead of time and Babul completes 6 days ahead of time. How many pages did Aman wrote per hour if Babul wrote 21 pages more in each hour?
(A) 54 page/hr (B) 75 page/hr
(C) 27 page/hr (D) 72 page/hr
93. A and B were assigned to do a job for an amount of ₹ 124800. A alone can do it in 12 days while B can do it in 13 days with the help of C. They can finish is 5 days. The share of amount that C earns is.
(A) ₹ 21,800 (B) ₹ 22,800
(C) ₹ 24,800 (D) ₹ 20,800
94. Raunak can complete a work in 12 days and Rohan can complete the same work in 24 day. If both of them work together, then in 3 days what percent of the total work will be completed?
(A) 32.0% (B) 37.5% (C) 31.10% (D) 25%
95. A, B and C can do job working alone in 15,20 and 10 days respectively. In how many days they can do the job of worked together?
 $3\frac{8}{13}$ days (A) $4\frac{8}{13}$ days (B) $4\frac{7}{15}$ days (C) $4\frac{7}{13}$ days (D) $4\frac{7}{12}$ days
96. It A can finish a job in 5 hours and B can finished the same job in 10 hours independently then they together will finish the job in?
(A) 11000 sec (B) 12000 sec
(C) 13000 sec (D) 1250 sec
97. A and B can separately finish a piece of work in. 30 days and 12days respectively. The work together for 5 days, after which B was replaced by C. If the work was finished in next 5 days. Then the number of days in which C alone could do the work is?
(A) 12 days (B) 22 days
(C) 20 days (D) 15 days
98. A can do a work in 12 days, B can do same work in 10days and C. can do same work in 8days. If all three of them do the same work together and they are paid Rs. 11100, then what is the share (in Rs.) of B?
(A) Rs. 3500 (B) Rs. 3400
(C) Rs. 3600 (D) Rs. 3600.5
99. A girl read $\frac{2}{7}$ th of a book on one day and $\frac{3}{5}$ th of remainder on another day. If there were 400 pages unread, how many pages did the book contain?
100. Raj can do a piece of work in 3 days and Rishi can finish the same work in 9 days. How much work will be finished if both work together for 2 days?
(A) One-fourth of the work
(B) Whole of the work
(C) Half of the work
(D) None of the these

Time and work (Solution)**Ans.1(C)**

2 days work of M and N = $5 \times 2 = 10$
 Remaining work = $54 - 10 = 44$
 Total time = $[44/11+2]$ days = 6 days

Ans.2(D)

4 days work of A and B = $4(9) = 36$
 Remaining work done by B
 = 21 days

Ans.3(A)

P - 33.33% $\rightarrow 1/3$ days
 Q - 16.67% $\rightarrow 1/6$ days
 $P + Q - 1/3 + 1/6 = 3/6 = 1/2$ Days
 P and Q can work together to finish the work in 2 days.

Ans.4(B)

Ambika + Arun's one day work = $1/13$
 Ambika's one day work = $1/39$
 Arun's one day work = $1/13 - 1/39 = 2/39$
 Arun will take = $39/2 = 19.5$ days

Ans.5(C)

A = 15 days
 B = 45 days
 C = 60 days
 LCM of 15, 45, 60 = 180
 So, A can do 12 units per day
 B = 4 units/day
 C = 3 units/day
 First day work done by A + B = 16 units
 Second day work done by B + C = 7 units
 Third day work done by C + A = 15 units
 Total work done is first 3 days
 = $16+7+15=38$ units
 Work done in 12 days = 38×4
 = 152 units
 Remaining work = $180 - 152 = 28$ unit done by
 13th day $\rightarrow A + B = 16$ units
 Remaining Work = 12 units
 14th day $\rightarrow B + C = 7$ units
 Remaining work = 5 units
 15th day work done by C + A = $5/15$
 = $1/3$ days
 So the total work completed in $12 + 1 + 1 + 1/3$ days = $14 \frac{1}{3}$ days

Ans.6(A)

Total work = $60 \times 50 = 3000$ units
 First 10 days = $10 \times 60 = 600$
 Second next 10 days = $10 \times 56 = 560$
 Third next 10 days = $10 \times 52 = 520$
 Fourth next 10 days = $10 \times 48 = 480$
 Fifth next 10 days = $10 \times 44 = 440$

Total work in 50 days = 2600

Left out work = 400 units.

Now for the next 10 days, there are 40 workers, they will complete the work in $400/40 = 10$ days.

Total days required = $50 + 10 = 60$ days**Ans.7(A)**Total work = $40 \times 30 = 1200$ unitsFirst 10 days = $10 \times 40 = 400$ Second 10 days = $10 \times 35 = 350$ Third 10 days = $10 \times 30 = 300$

Total work in 30 days = 1050

Left out work = 150 units.

Now for the next 10 days, there are 25 workers, they will complete the work in $150/25 = 6$ days.

Total days required = $30 + 6 = 36$ days.**Ans.8(B)**Total units of work = 55×3 (Efficiency \times Time = Work)

If they work together = $(55 \times 3)/5$
 = 33 days.

Ans.9(B)

4608 m

Ans.10(A) $9 \frac{4}{7}$ days**Ans.11(C)**

Let us consider the total unit of work as = 20 units

Mans' 1 day work = $20/10 = 2$ Women 1 day work = $20/20 = 1$

Now men with 60% efficiency will do in 1 day = $60/100 \times 2 = 6/5$ unit work

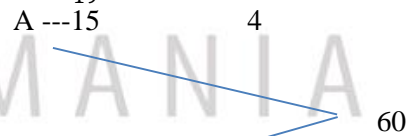
Now women with 50% efficiency will do $\frac{1}{2}$ unit work

So, both working together in 1 day will do $6/5 + \frac{1}{2} = 17/10$ unit work

So, to complete 20 unit work they will take = $20 / (17/10) = 200/17$ days.

Ans.12(D)

Required time = $\frac{2 \times 15 \times 20 \times 24}{15 \times 20 + 20 \times 24 + 24 \times 15}$
 = $12 \frac{12}{19}$ days

Ans.13(D)

B --- 20 3
 ATQ

 $4(4+3) + d \times 3 = 60$ $D = (60-28)/3 = 32/3$ days**Ans.14(B)**

$\frac{10 \times 12}{4} = \frac{8 \times D}{6}$

D = 22.5 days

Ans.15(A)

Required time = TS/T+S

Ans.16(D) Maan+Ram=15

60

$$\text{Ram} = 20 \quad 3$$

$$\text{Required Ans} = 60/(4-3) = 60$$

Ans.17(B) Using the short trick which is M_1D_1

M_2D_2 We get,

$$60 \times 25 = 24 \times d$$

$$\Rightarrow d = \frac{60 \times 25}{24}$$

$$= 62.5 \text{ days}$$

Ans.18(D) Boy can complete the work in $\left[\frac{12 \times 9}{12-9}\right]$

$$= 36 \text{ days.}$$

$$\text{Man : Boy} = \frac{1}{12} : \frac{1}{36} = 3:1$$

$$\text{Boy's share} = \frac{1244}{4} \times 1 = ₹ 311$$

Ans.19(D) $3m = 4W$

$$M = \frac{4W}{3}$$

$$9M + 6W = 9 \times \frac{4W}{3} + 6W = 18W$$

$$4W \times 45 = 18W \times D$$

$$D = 10 \text{ Days}$$

Ans.20(C) P and Q can do the work in 10 days together

$$= 10 \times \left(\frac{1}{50} + \frac{1}{40}\right)$$

$$\text{Rest of work} = 1 - \frac{9}{20} \times \frac{11}{20}$$

Q will do the rest of the work in

$$= 40 \times \frac{11}{20} = 22 \text{ days}$$

Ans.21(B) $A:B = \frac{1}{8} : \frac{1}{12} = 3:2$

$$B's \text{ share} = \frac{1995}{5} \times 2$$

$$= 399 \times 2$$

$$= ₹ 798$$

Ans.22(A) Work in 3 days by all = $3 \times (6 + 5 + 4)$

$$= 45 \text{ unit}$$

$$R \text{ works for last 3 days } R = 4 \times 3 = 12 \text{ unit}$$

Remaining [$120 - (45 + 12) = 63 \text{ unit}$] is done

$$\text{by Q and R in } = 63/(5+4) = 7 \text{ days}$$

$$Q, R [120 - (45 + 12) = 63 \text{ w}]$$

$$= 63/(5+4) = 7$$

$$\text{Total time} = 3 + 3 + 7 = 13 \text{ days}$$

Ans.23(C) Given that, A can do a task in 6 days.

$$\therefore 1 \text{ day's work by A} = 1/6 \text{ days}$$

Also, B can do it in 4 days

$$\therefore 1 \text{ day's work by B} = 1/4 \text{ days}$$

1 day's work by both A and B together

$$= 1/6 + 1/4 = 2 + 3/12 = 5/12 \text{ days}$$

To do the whole work, time taken by A and B

$$\text{together} = 1 / (5/12) = 12/5 \text{ days}$$

$$= 24/10 \text{ days}$$

Ans.24(A) 3 male = 14 female

$$\text{So, } 28 \text{ female} = 6 \text{ male}$$

then, total number of male = 12 male

If work is equal so,

$$M_1 \times T_1 = M_2 \times T_2$$

$$3M \times 12 \text{ day} = 12M \times x \text{ day}$$

$$x = 3 \text{ day}$$

Ans.25(A) A – 8 days

$$B - 8 \times 3/4 = 6 \text{ days}$$

Let, total work is 24 units. Then efficiency of

A and B will be 3 And 4

So, total efficiency will be = 7

$$\text{Days} = \text{Total work} / \text{efficiency} = 24/7 \text{ day}$$

Ans.26(A) Let, both are work together will take time x hours.

A taken time x+8 hours

B taken time x+18 hours

$$A+B = \sqrt{A \times B}$$

$$= \sqrt{(18 \times 8)} = 12 \text{ hours}$$

Ans.27(D) Since 6 men take 14 days to complete the work, 1 man takes 6×14 days to complete the work. (i.e.) 84 days

Let the capacity of the one man

$$= 1 \text{ unit per day}$$

Then total units of the work = 84 units

Now work done by 6 men in 4 days

$$= (6 \times 4) = 24 \text{ units}$$

Remaining work = $84 - 24 = 60 \text{ units}$

Required time to complete the remaining work = $60/4 = 15 \text{ days}$

Ans.28(A) Total work = men \times days

$$\text{Total work} = 30 \times 15 = 45$$

$$8 \text{ days work} = 30 \times 8 = 240$$

$$\text{Remaining work} = 450 - 240 = 210$$

Let the number of women replaced be x,

$$210/(25 + x) = 7$$

$$25 + x = 30$$

$$X = 5 \text{ women}$$

Ans.29(C) The ratio of work efficiency of Shyam to Ravi = 140% : 100%

$$= 7:5$$

Time taken by Shyam alone to complete the work = 5x

And time taken by Ravi alone to complete the work = 7x

Then according to the question,

$$7x - 5x = 10$$

$$x = 5$$

Thus Shyam can complete the work in 25 days and Ravi can complete the work in 35 days.

Now Time taken by both of them together to complete the work

$$= 1 / [(1/25) + (1/35)]$$

$$= 14 \frac{7}{12} \text{ days}$$

Ans.30(A) Given, $(1/A) + (1/B) = 1/24$

Since, B does $3/4$ th of the total work.

This means B is thrice as efficient as A.

Also, number of days is inversely proportional to the efficiency.

Let the number of days taken by B alone to complete the work be 'x' days.

Then, the number of days taken by A alone to complete the work = '3x' days

$$\text{So, } (1/3x) + (1/x) = 1/24$$

$$x = 32 \text{ days}$$

So, number of days taken by A alone to complete the work = $3x = 96$ days

Ans.31(B) Let, the total pages in the book be LCM of (36 and 12) = 36 pages

Number of pages typed by Parul in one day = 1 page

Number of pages typed by Ashmita in one day = 3 pages

So, number of pages typed by both in one day = $1 + 3 = 4$ pages

Number of pages typed by both in 3 days = 12 pages

$$\text{Required \%} = (12/36) \times 100 = 33.33\%$$

Ans.32(C) Time taken by Sarika to complete $3/7$ th part of a job = 18 days.

Since, Vinay is 1.5 times as efficient as Sarika

So, time taken by Vinay to complete the job = $[1 / ((3/7) \times (3/2))] \times 18 = 28$ days

Ans.33(A) $\Rightarrow 126A = 108B = W$, where W is the quantum of work in work units

\Rightarrow If working together 9 hours a day they finish the job in d days,

$$\Rightarrow 6d(A + B) = W$$

\Rightarrow From the given conditions,

$$A = W/126 \text{ \& } B = W/108$$

\Rightarrow So, when working together,

$$6d(A + B) = W$$

$$6d(W/126 + W/108) = W$$

$$\Rightarrow 6d(1/126 + 1/108) = 1$$

$$\Rightarrow 13/126 = 1/d$$

$$\Rightarrow \therefore d = 126/13 \text{ days}$$

Ans.34(C) $10 \times 16 \times 21 = 24 \times t \times 14$

$$t = \frac{10 \times 16 \times 21}{24 \times 14} = 10 \text{ hours}$$

Ans.35(A) Let A and B can alone complete the work in a and b days respectively.

One day work of $A+B=1/6$

According to the given condition, A and B work together for two days hence one third of work is completed.

A worked for five more days to complete the work

$\therefore 2/3$ work completed by A in 5 days

\therefore A will take 7.5 days to complete the work.

$$2/15 + 1/b = 1/6$$

$$\therefore b = 30 \text{ days}$$

\therefore B alone can complete the work in 30 days

Ans.36(A) Siya can do a work in eight days. Drishti can do the same work in twelve days while Payal can do the same work in thirteen days. Let the

total work (in terms of units) be equal to the L.C.M. of 8, 12 and 13 i.e. 312 units.

Then, the respective shares of Siya, Drishti and Payal can be calculated as follows-

Number of units of work done by Siya, Drishti and Payal is $312/8 = 39$ units; $312/12 = 26$ units and $312/13 = 24$ units respectively; total being equal to 89 units ($39 + 26 + 24$)

Thus, if they are paid Rs. 2225 for doing the same work together, then the share of Siya (in Rs.) = $(39/89) \times 2225$
= Rs. 975.

Ans.37(C) Paras can do $1/18$ th of a task in three days, which implies it takes 54 days for him to complete the task (or $1/54$ th of the task done by him in 1 day). Similarly, it takes 27 days for Mansavi to complete the task (or $1/27$ th of the task done by her in 1 day). If they both start doing the task together, $1/54 + 1/27 = 1/18$ th of the task shall be done in 1 day or the task shall get completed in 18 days, implying that half of the work shall be done in 9 days. Since Paras can complete the task alone in 54 days, half of the task shall be completed by him alone in 27 days.

Thus, 36 days ($9 + 27$) will be taken to complete the task.

Ans.38(C) Let the number of days taken by A and B to complete the work individually be 'A' days and 'B' days respectively.

Then, A's work in one day and B's work in one day can be written as $1/A$ and $1/B$ and if they work together, one day's work can be obtained as $(1/A + 1/B = (A + B) / AB)$. Number of days taken to complete the work together = $(AB / (A + B))$

$$8 = (AB / 36)$$

$$AB = 288 \text{ days}$$

Among the given options, only (12, 24) days satisfies both the conditions

$$\{(12 + 24 = 36) \text{ and } (12 \times 24 = 288)\}.$$

Ans.39(C) $(1/A) + (1/B) = 1/27$

$$(1/A) + (1/81) = 1/27$$

$$(1/A) = 2/81$$

$$A = 81/2$$

Thus, A alone can complete the job in 40.5 days.

Ans.40(D) 55%

Ans.41(A)

$$\begin{array}{l} A+B \rightarrow n^2 m^2 \\ B \rightarrow n^2 \end{array} \quad \begin{array}{c} \nearrow \\ \searrow \end{array} \quad \begin{array}{c} n^2 m^2 \\ m^2 \end{array}$$

$$A \text{ CAN-DO IT } = \frac{nm^2}{(1-m^2)} \text{ days}$$

Ans.42(A)

$$\begin{array}{rcl} 12m+10w & \rightarrow & 12 \\ 6m+8w & \rightarrow & 20 \end{array} \begin{array}{l} 5 \\ 3 \end{array} \rightarrow 60$$

$$\begin{array}{rcl} 12m+10w & \rightarrow & 5 \text{ --- I} \\ 6m+8w & \rightarrow & 3 \text{ --- II} \end{array}$$

On Solving eq I and II
 $1w = 1/6$, $1m = 5/18$

$$(36m + 12w) \text{ can do } = \left(36 \times \frac{5}{18} + 12 \times \frac{1}{6} \right) \times \frac{60}{10+2} = 5 \text{ day}$$

Ans.43(C) Given that, 1 man = 2 women
 Then 8 men + 4 women = 16 women + 4 women = 20 women
 20 women's 2 day's work = $2/6 = 1/3$ part
 Then remaining work = $1 - 1/3 = 2/3$
 Since 20 women can complete the 1 work in 6 days,
 Time taken by 16 (20-8+4) women to complete the $2/3$ work
 $= [(20 \times 6)/16] \times 2/3 = 5$ days

Ans.44(D) Here work equal.
 So, $(8m + 15w) \times 12 = (10m + 8w) \times 15$
 $32m + 60w = 50m + 40w$
 $20w = 18m$
 $10w = 9m$
 $m = (10/9) \times w$
 $8m + 15w = 8 \times (10/9)w + 15w$
 $= 215/9 w$
 $9m + 15w = 9 \times (10/9)m + 15w = 25w$
 Women days
 $215/9 \times 12$
 $25 ?$

$$(215/9) \times 12 = 25 \times x$$

$$X = 172/15 = 11 \frac{7}{15} \text{ days}$$

Ans.45(D) $1W \ 1D = 1/(12 \times 16)$
 $8M + 6W = 1/18$
 $8M + 6/(12 \times 16) = 1/18$
 $8M = 1/18 - 1/32 = 7/(9 \times 32)$
 $1M = 7 / ((9 \times 32) \times 8) = 7 / (9 \times 32 \times 8)$
 $= 2 \times 7 / (9 \times 32 \times 8) + 4 / (12 \times 16) = 62/2304$
 $= 31/1152$
 $= 1152/31 \text{ Days.}$

Ans.46(D) None of these

Ans.47(B) Latha and Githa's together 1 day's work
 $= 1/6$ days
 Latha's 1 day's work = $1/18$ days
 Therefore, Githa's 1 day's work
 $= (1/6 - 1/18) \text{ days}$
 $= (3-1)/18 \text{ days}$
 $= 2/18 \text{ days}$
 $= 1/9 \text{ days}$

Hence, Githa alone can complete the work in 9 days.

Ans.48(B) Anu alone completes the work in 12 days. So, he does $1/12$ th of the work in 1 day.

Banu alone completes the work in 16 days.
 So, he does $1/16$ th of the work on 1 day.
 Hence, total work completed together in 1 day
 $= (1/12) + (1/16) = 7/48$

Anu and Banu work together for only 6 days.
 Work completed together in 6 days
 $= 6 \times (7/48) = 7/8$

Amount of work that Banu has to complete alone = $1 - (7/8) = 1/8$

Number of days that Banu will take to complete the work = $(1/8) / (1/16)$
 $= 2$ days.

Hence, Banu can finish the remaining work in 2 days.

Ans.49(B) $R = 25$ ——— 2 (Total work = 50)

$N = 50$ ——— 1

$R + N =$ ——— 3

R and N did the work for $14 - 4 = 10$ days

$(R + N) \times 10 = 3 \times 10 = 30$ work

Remaining work = $50 - 30 = 20$

Aman did 20 work in 4 days;

1 day = 5 work

So, 50 work in 10 days

Ans.50(C) Assume that, total work is 1 unit.

Also let A, B and C complete x, y and z respectively.

$20x : 24y : 10z = 7 : 14 : 10$ (1)

From (1), we have $20x : 24y = 7 : 14$

$x : y = 3 : 5$

Also from (1), $24y : 10z = 14 : 10$

$y : z = 7 : 12$ (2)

From (1) and (2), we have $x : y : z$

$= 21 : 35 : 60$

Ans.51(A) We know that time taken to complete a piece of work is inversely proportional to number of workers

Let the number men to build the house in 6 months be 'x'.

$$48 \times 8 = 6 \times x$$

$$\Rightarrow x = 48 \times 8/6$$

$$\Rightarrow x = 64 \text{ men}$$

Ans.52(B) According to the question,

$$9 \times 360 \text{ children} = 18 \times 72 \text{ men}$$

$$= 12 \times 162 \text{ women}$$

$$(i.e.) 45 \text{ children} = 18 \text{ men} = 27 \text{ women}$$

$$(i.e.) 5 \text{ children} = 2 \text{ men} = 3 \text{ women}$$

$$\text{Thus, } 4 \text{ men} + 12 \text{ women} + 10 \text{ children}$$

$$= 4 \text{ men} + 8 \text{ men} + 4 \text{ men}$$

$$= 16 \text{ men}$$

Since 18 men can complete the work in 72 days,

Time taken by 16 men to complete the work

$$= (18 \times 72)/16$$

$$= 81 \text{ days}$$

Ans.53(B) $15 - 1$

$$3 - ?$$

$1/5$ th of work is completed by them.

$$3 \text{rd person time taken} = 5/3 \times 15 = 25 \text{ hours}$$

$$1/15 + 1/25 = 40/(15 \times 25) = 8/75$$

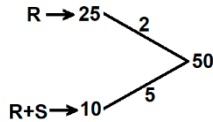
$$\text{Work} = 75/8 \times 4/5 = 7.5$$

$$\text{Total time taken} = 3 + 7.5 = 10.5 \text{ hrs}$$

Ans.54(A) Ram - $\frac{3}{5}$ work = 15 days whole work = 25 day

$$\text{Ram} + \text{Shyam} = \frac{2}{5} \text{ work} = 4 \text{ days}$$

$$= \text{whole work} = 10 \text{ day}$$



$$\text{Shyam can do work} = \frac{50}{(5-2)} = \frac{50}{3}$$

$$= 16\frac{2}{3} \text{ days}$$

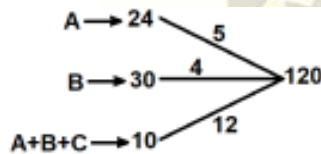
Ans.55(D) $10M = 20G$ $m = \frac{20}{10}$ $G = 2$

$$\frac{(20 \times 10)}{260} = \frac{(8M + 4G) \times 20}{w} \times \frac{10}{13}$$

$$= \frac{(8 \times 2G + 4G) \times 20}{w}$$

$$\frac{10}{20 \times 13} = \frac{20G}{w} \quad w = \frac{20 \times 20 \times 13}{10} = 520$$

Ans.56(B)



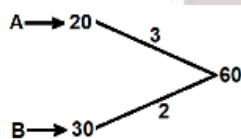
$$\text{C can do the work} = \frac{120}{(12-9)} = \frac{120}{3}$$

$$= 40 \text{ days}$$

Ans.57(B) $2\frac{3}{4}$ days

Ans.58(C) Required days = $\frac{30 \times 32}{12} = 80$ days

Ans.59(A)



According to the questions

$$(3+2)D + (2) \times 10 = 60$$

$$5D = 60 - 20 = 40$$

$$D = 8 \text{ days}$$

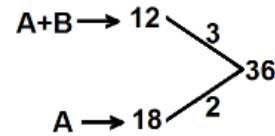
Ans.60(C) Required days = $\frac{16 \times 30}{15} = 32$ days

Ans.61(A) $\frac{15 \times 16}{1} = \frac{12 \times D_2}{1}$

$$D_2 = \frac{15 \times 16}{12} = \frac{240}{12} = 20 \text{ days}$$

Ans.62(D) None of these

Ans.63(C)



$$\text{B can do half work} = \frac{18}{(3-2)} = 18 \text{ days}$$

Ans.64(B) Required days = $\frac{100 \times 16}{100+60} = \frac{1600}{160}$

$$= 10 \text{ days}$$

Ans.65(B) Kush = 15

$$\text{Ankur} = x$$

Now

$$\frac{1}{x} + \frac{1}{15} = \frac{3}{20}$$

$$\frac{1}{x} = \frac{3}{20} - \frac{1}{15} = \frac{9-4}{60}$$

$$\frac{1}{x} = \frac{5}{60} = \frac{1}{12}$$

$$x = 12 \text{ days}$$

Ans.66(C) According to the questions

$$M = x$$

$$N = 2x$$

$$\frac{1}{x} + \frac{1}{2x} = \frac{1}{24}$$

$$\frac{2+1}{2x} = \frac{1}{24}$$

$$\frac{3}{2x} = \frac{1}{24}$$

$$\frac{3 \times 24}{2} = x$$

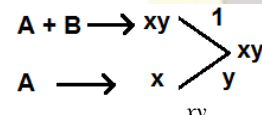
$$x = 36$$

$$N \text{ can do work} = 72 \text{ days}$$

$$B = 32 \times \frac{100}{160} = 20 \text{ days}$$

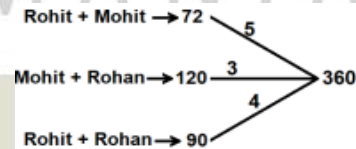
Ans.67(C)

Ans.68(C)



$$B' \text{ can do} = \frac{xy}{(1-y)} \text{ days}$$

Ans.69(B)



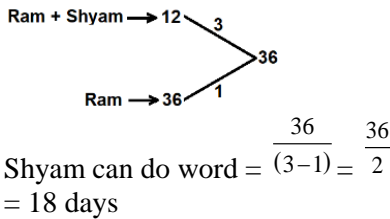
$$\text{Rohit} + \text{Mohit} + \text{Rohan} = \left(\frac{12}{2}\right)$$

$$= 6 \quad 4 \text{ days of work} = 6 \times 4 = 24$$

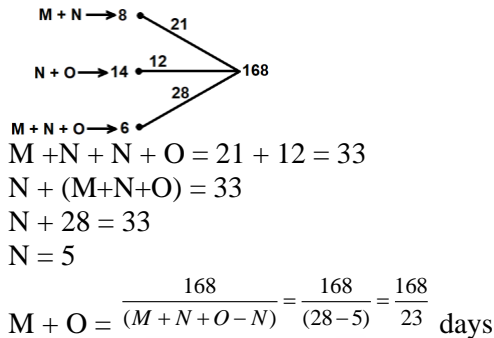
$$\text{Required answer} = \frac{24}{360} = \frac{4}{60}$$

$$= \frac{1}{15} \text{ of work}$$

Ans.70(A)



Ans.71(A)



Ans.72(C)

Required days = $\frac{1}{\frac{2}{4 \times 50} + \frac{9}{6 \times 50}} = 100$
 $= \frac{1}{\frac{1}{100} + \frac{3}{100}} = \frac{1}{\frac{4}{100}} = 25$ days

Ans.73(C)

Required answer = $\left(1 - \frac{7}{11}\right) 1540$
 $= \frac{4}{11} \times 1540 = 4 \times 140 = \text{Rs.} 560$

Ans.74(C)

M can do work = $\frac{126}{3.50} = 36$ days
 N can do work = $\frac{150}{2.50} = 60$ days
 (M + N) do work in = $\frac{180}{8} = \frac{45}{2}$
 Required answer = $\frac{45}{2} (3.5 + 2.5)$
 $= \frac{45}{2} \times 6 = \text{₹ } 135$

Ans.75(D)

M $\rightarrow 15$
 N $\rightarrow 18$
 According to the question
 K of efficiency k = x
 $7 \times 6 + 3 \times 5 + 2x = 90$
 $2x = 90 - 57 = 33$
 $x = \frac{33}{2}$
 Required Ans = $\frac{30}{11} \times 2 = 5 \frac{5}{11}$ days

Ans.76(D)

None of these

Ans.77(C)

for minimum number of clothes, efficiency of each weaver should be equal A+B+C+D+E

Ans.78(C)

70 day $\rightarrow 1400$ clothes
 A, B, C, D, E works alternatively,
 A's 1 day work = B's 1 day work = C's 1 day work = D's 1 day work = E's 1 day work
 Efficiency of A = 20 clothes/day
 Required no. of clothes in 2 days = $2 \times (20+20+20+20+20) = 200$ Clothes
 Let total work = 6
 6 \leftarrow Amar $\rightarrow 10$
 3 \leftarrow Bipin $\rightarrow 20$
 2 \leftarrow Chandan $\rightarrow 30$
 $\rightarrow 60$
 11 $\times 2 = 22$ Amar + Bipin + Chandan
 32 Bipin + Chandan
 3 $\times 2 = 6$ Chandan
 total days = $2+3+6 + \frac{2}{5} = 11 \frac{2}{5}$ Days

Ans.79(A)

Efficiency of Satish = $150/100 \times \text{Ramesh}$
 Efficiency \rightarrow Ramesh:Satish = 2:3
 Efficiency \rightarrow Satish:Ankit = 3:2
 Efficiency Total work
 2 \leftarrow Ramesh
 3 \leftarrow Satish 105
 2 \leftarrow Ankit
 7×15 days
 Work done by (Ramesh+Satish) in 4 days = $5 \times 4 = 20$
 Work done by (Satish+Ankit) in next 2 days = $5 \times 2 = 10$
 Last day work done by Ankit and Satish = $2+3=5$ Work
 Remaining work = $105 - (20+10+5) = 50$
 it will complete by

(Ramesh+Satish+Ankit) = $50/7 = 7 \frac{1}{7}$ days

Ramesh worked = $7 \frac{1}{7} + 4 = 11 \frac{1}{7}$ days
 $\frac{9800}{11}$

Ans.80(D)

No. of days required = $\frac{350}{12.5} = 28$ days

Ans.81(C)

Let total work = 60, then efficiency of A=3, B=2, C=1
 Then total work in first 3 days is
 $= 3 \times 3 + 2 \times 1 = 11$
 Hence 60 works is completed in $5 \times 3 = 15$ days

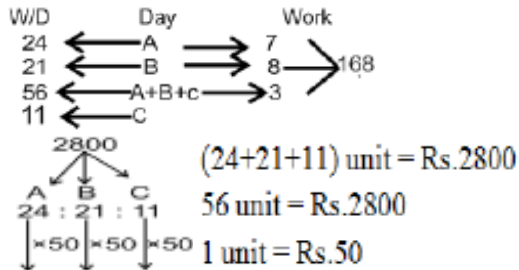
Ans.82(C)

Let total work is 2 Then efficiency of A and B are 2&1 From option let take 6 Means 12 works is completed remaining have to complete in 4 days since efficiency for last 4 days is 3 hence work done = $4 \times 3 = 12$ Hence total work = $6 \times 2 + 4 \times 3 = 24$

Ans.83(C)

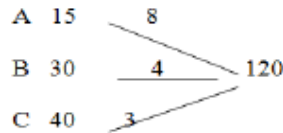
Total work = 11 unit
 Work done by (A+B) = 8 unit
 C alone will do work = 3 unit
 11 unit = Rs.660
 C's amount = $(660/11) \times 3 = \text{Rs.} 180$

Ans.84(C)



Efficiency of third person is
= 11 w/d Wages divided in the ratio of their efficiency. Rs. 1200, Rs. 1050, Rs. 550

Ans.85(A) Using LCM method



Time taken to complete the work = total work/Total work total efficiency.

Total work = 120

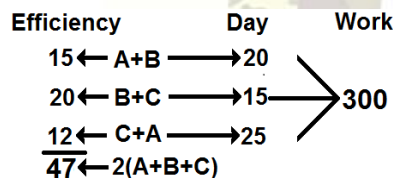
Total eff.

8+4+3=15

Hence the time taken to complete the work
152/15

= 10 + (2/15) days

Ans.86(A)



efficiency of A+B+C = 23.5 work per day

work done in 4 days by (A+B+C)

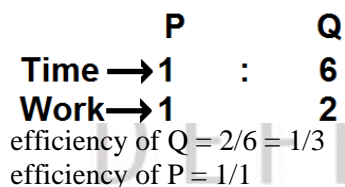
= 23.5 × 4 = 94.0

∴ Remaining work = 300 - 94

= 206

∴ Required % = $\frac{206}{300} \times 100 = 68.66\%$

Ans.87(C)



total work done by (P+Q) = $\left(1 + \frac{1}{3}\right) \times 15$
= 60/3 = 20 unit

Q alone will complete work = $\frac{20}{1/3}$
= 60 day

Ans.88(A) Number of Pages typed by Abhishek, Ritik and Nitin together in one day
= 1350/30
= 45 pages.

Let, Nitin types x pages per day,

A.T.Q.

(x-d)+x+(x+d)=45

x=15 page/day

Nitin types

A.T.Q.

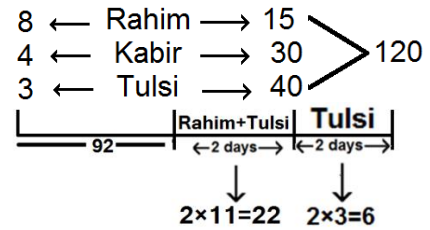
(Abhishek) × 3 = (Ritik) × 2

Abhishek : Ritik = 2 : 3

Ritik will type = 3/5 × 30 = 18 Page

Ritik will type = 18/6 = 3 Page/ hour

Ans.89(A)

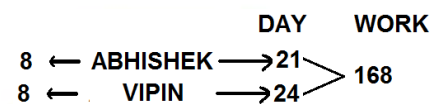


Total days = $6\frac{2}{15} + 2 + 2 = 10\frac{2}{15}$ days

None of these

Ans.90(D)

Ans.91(A)



work done by Bipin in 9 days = 9 × 7 = 63

Remaining work = 105

Abhishek worked for = 105/(8+7)

= 7 Days

Total work done by VIPIN = 16 × 7

= 112 work

Total work done by ABHISHEK

= 7 × 8 = 56 work

Wage of ABHISHEK : Wage of Vipin

= 56:112 = 1:2

3 unit = Rs.3333

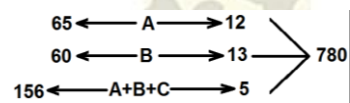
1 unit = Rs.1111

wage of Vipin = Rs.2222

54 page/hr

Ans.92(A)

Ans.93(C)



Part of work that C Canoin a day

= (156 - (60 + 65))

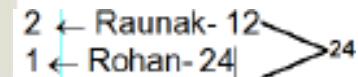
= 31

Hence A, B and C ratio of work

= 65 : 60 : 31

Hence C' share = $\frac{124800}{156} \times 31 = \text{Rs. } 24,800$

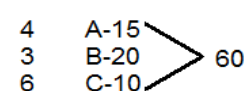
Ans.94(B)



3 days work = 3 × 3 = 9

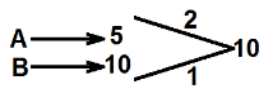
Required percent = 37.5%

Ans.95(B)



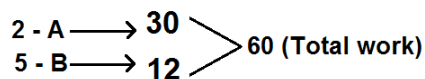
A+B+C = $\frac{60}{13} = 4\frac{8}{13}$ days

Ans.96(B)



$$A + B = \frac{10}{3} \text{ hour} = 12000 \text{ sec.}$$

Ans.97(C)



$$60 - 7 \times 5 = 25$$

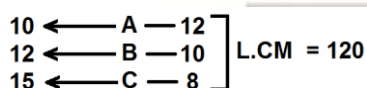
$$A + C = \frac{25}{5}$$

$$C = 5 - 2$$

$$C = 3$$

$$C \text{ alone done work} = 60/3 \\ = 20 \text{ days}$$

Ans.98(C)



Ratio of shares of A, B and C
= 10 : 12 : 15

$$B's \text{ share} = \frac{11100 \times 12}{(10+12+15)} = 3600$$

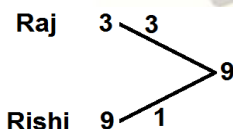
Ans.99(B)

Let total number of page = x
According to question

$$x \times \frac{5}{7} \times \frac{2}{5} = 400$$

$$x = 1400$$

Ans.100(D)



$$\text{Work in two days} = 4 \times 2 = 8$$

$$\frac{8}{9} \text{ part of work will finish in two days}$$

DEFENCE MANIA
2021