MBA PATHSHALA WITH UDIT SAINI

For CAT, XAT, NMAT, GMAT, SNAP, IIFT, MAHCET and OMETs.

CAT PREVIOUS YEAR QUESTIONS

On

TIME & WORK

CAT & OMETs Content by Udit Saini

1. John gets Rs.57 per hour of regular work and Rs.114 per hour of overtime work. He works altogether 172 hours and his income from overtime hours is 15% of his income from regular hours. Then, for how many hours did he work overtime?

[TITA] **[CAT 2019]**

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=178

2. Anil alone can do a job in 20 days while Sunil alone can do it in 40 days. Anil starts the job, and after 3 days, Sunil joins him. Again, after a few more days, Bimal joins them and they together finish the job. If Bimal has done 10% of the job, then in how many days was the job done? **[CAT 2019]**

(A) 13 (B) 12 (C) 15 (D) 14

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=483

3. Three men and eight machines can finish a job in half the time taken by three machines and eight men to finish the same job. If two machines can finish the job in 13 days, then how many men can finish the job in 13 days? [TITA] **[CAT 2019]**

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=868

4. At their usual efficiency levels, A and B together finish a task in 12 days. If A had worked half as efficiently as she usually does, and B had worked thrice as efficiently as he does, the task would have been completed in nine days. How many days would it take to finish the task if she worked alone at her usual efficiency? **[CAT 2019]**

(A)18 (B)12 (C)24 (D)36

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=1694

5. A water tank has inlets of two types A and B. All inlets of type A when open, bring in water at the same rate. All inlets of type B, when open, bring in water at the same rate. The empty tank is completely filled in 30 minutes if 10 inlets of type A and 45 inlets of type B are open, and in 1 hour if 8 inlets of type A and 18 inlets of type B are open. In how many minutes will the empty tank get completely filled if 7 inlets of type A and 27 inlets of type B are open? [TITA] **[CAT 2018]**

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=2123

6. Ramesh and Ganesh can together complete a work in 16 days. After seven days of working together, Ramesh got sick and his efficiency fell by 30%. As a result, they completed the work in 17 days instead of 16 days. If Ganesh had worked alone after Ramesh got sick, in how many days would he have completed the remaining work?

[CAT 2018]

(A) 12 (B) 14.5 (C) 13.5 (D) 11

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=2676

7. A tank is emptied every day at a fixed time point. Immediately thereafter, either pump A or pump B or both start working until the tank is full. On Monday, A alone completed filling the tank at 8 pm. On Tuesday, B alone alone completed filling the tank at 6 pm. On Wednesday, A alone worked till 5 pm, and then B worked alone from 5 pm to 7 pm, to fill the tank. At what time was the tank filled on Thursday if both pumps were used simultaneously all along? **[CAT 2018]**

(A)4 : 12 pm (B)4 : 24 pm (C)4 : 48 pm (D)4 : 36 pm

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=3224

8. A tank is fitted with pipes, some filling it and the rest draining it. All filling pipes fill at the same rate, and all draining pipes drain at the same rate. The empty tank gets completely filled in 6 hours and when 6 filling and 5 draining pipes are on, but this time becomes 60 hours when 5 filling and 6 draining pipes are on. In how many hours will the empty tank get completely filled when one draining and two filling pipes are on?

[TITA] **[CAT 2018]**

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=4130

9. Humans and robots can both perform a job but at different efficiencies. Fifteen humans and five robots working together take 30 days to finish the job, whereas five humans and fifteen robots working together take 60 days to finish it. How many days will fifteen humans working together (without any robot) take to finish it? **[CAT 2018]**

(A) 40 (B) 32 (C) 36 (D) 45

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=4479

10. When they work alone, B needs 25% more time to finish a job than A does. They two finish the job in 13 days in the following manner: A works alone till half the job is done, then A and B work together for four days, and finally B works alone to complete the remaining 5% of the job. In how many days can B alone finish the entire job? **[CAT 2018]**

(A)16 (B)22 (C)20 (D)18

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=4852

11. Amal can complete a job in 10 days and Bimal can complete it in 8 days. Amal, Vimal and Kamal together complete the job in 4 days and are paid a total amount of Rs. 1000 as remuneration. If this amount is shared by them in proportion to their work, then Kamal' s share, in rupees, is **[CAT 2017]**

(A)100 (B)200 (C)300 (D)400

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=5445

12. A tank has an inlet pipe and an outlet pipe. If the outlet pipe is closed then the inlet pipe fills the empty tank in 8 hours. If the outlet pipe is open then the inlet pipe fills the empty tank in 10 hours. If only the outlet pipe is open then in how many hours the full tank becomes half-full? **[CAT 2017]**

(A)20 (B)30 (C)40 (D)45

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=5565

13. A person can complete a job in 120 days. He works alone on Day 1. On Day 2, he is joined by another person who also can complete the job in exactly 120 days. On Day 3, they are joined by another person of equal efficiency. Like this, every day a new person with the same efficiency joins the work. How many days are required to complete the job? [TITA] **[CAT 2017]**

Click on the link to watch the video solution :- https://youtu.be/QbcKt9CK2jU?t=5870

14. John takes twice as much time as Jack to finish a job. Jack and Jim together take one-thirds of the time to finish the job than John takes working alone. Moreover, in order to finish the job, John takes three days more than that taken by three of them working together. In how many days will Jim finish the job working alone? **[CAT2020 Slot 2]**

Click on the link to watch the video solution :- https://youtu.be/iWFQZGWJuiU?t=2609

15. A contractor agreed to construct a 6 km road in 200 days. He employed 140 persons for the work. After 60 days, he realized that only 1.5 km road has been completed. How many additional people would he need to employ in order to finish the work exactly on time? **[CAT2020 Slot 3]**

Click on the link to watch the video solution :- https://youtu.be/eGvGGNPtrJ8?t=2280

16. One man can do as much work in one day as a woman can do in 2 days. A child does one third the work in a day as a woman. If an estate-owner hires 39 pairs of hands, men, women and children in the ratio 6 : 5 : 2 and pays them in all Rs. 1113 at the end of the days work. What must the daily wages of a child be, if the wages are proportional to the amount of work done?

(A) Rs.14 (B) Rs.5 (C) Rs.20 (D) Rs.7

Click on the link to watch the video solution :- https://youtu.be/TA8lHar4yVQ?t=1825

17. A contractor agreed to finish a piece of work in 150 days. He employed 75 men and made them work for 8 hours per day. However, after 90 days, he realized that only 2/7th of the work was completed. How many more men would he need to employ to complete the work on time if he intended to make everybody work for 10 hours per day henceforth? **[CAT-2016]**

Click on the link to watch the video solution :- https://youtu.be/UfckJ1FvtZ0?t=470

18. A water tank has three taps A, B, and C. A fills four buckets in 24 mins, B fills 8 buckets in 1 hour and C fills 2 buckets in 20 minutes. If all the taps are opened together a full tank is emptied in 2 hours. If a bucket can hold 5 litres of water, what is the capacity of the tank in litres? **[CAT]**

Click on the link to watch the video solution :- https://youtu.be/psRZtTf3qr8?t=1077

19. Anushka and Anirudh working together can complete a piece of work in 20 days. They started the work together, but Anushka left after x days and Anirudh finished the remaining work in the next x/2 days. Had Anushka left after 3x/4 days, Anirudh would have taken x days to finish the remaining work. Find the ratio of the efficiency of Anushka to that of Anirudh. **[CAT 2013]**

(A) 2 : 3 (B) 3 : 2 (C) 2 : 1 (D) 1 : 1

Click on the link to watch the video solution :- https://youtu.be/lkWPrlITDB0?t=650

CAT & OMETs Content by Udit Saini

Important Playlist Links for CAT & OMETs Aspirants.

- **CAT Previous Year Questions Topic Wise**
  https://youtube.com/playlist?list=PLLtQdEJkug7vLA4qmuCJtB_AJ7HP518xT

- **CAT Arithmetic Previous Year Questions (Last 10 Years)**
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