

## Time and Work Questions for CAT

**Question 1:** A water tank has three taps: A, B and C. A fills 4 buckets in 24 min, B fills 8 buckets in 1 hr, and C fills 2 buckets 20 min. If all the taps are opened together, a full tank is emptied in 2 hr. If a bucket contains 5 L water, what is the capacity of the tank?

- (a) 120 L
- (b) 240 L
- (c) 180 L
- (d) 60 L

**Solution:** The capacity of the bucket as mentioned in the question is 5 litres

So, tap A fills 20 litres of water in 24 min.

Tap B fills 40 litres of water in 60 min

Tap C fills 10 litres of water in 20 min

So, the work done by all the taps together in 2 hours

$$= \{(20/24 \times 120) + (40/60 \times 120) + (10/20 \times 120)\}$$

$$= 240$$

**Answer:** Thus, the capacity of the tank is 240 litres.

**Question 2:** A builder appoints three construction workers, Akash, Sunil and Rakesh, on one of his sites. They take 20, 30 and 60 days respectively to do a piece of work. How many days will it take Akash to complete the entire work if he is assisted by Sunil and Rakesh every third day?

- a. 10 days
- b. 15 days
- c. 25 days
- d. 30 days

**Solution:** Total work done by Akash, Sunil and Rakesh in 1 day =  $\{(1/20) + (1/30) + (1/60)\} = 1/10$  Work done along by Akash in 2 days =  $(1/20) \times 2 = 1/10$

Work Done in 3 days (1 day of all three together + 2 days of Akash's work)

$$= (1/10) + (1/10) = 1/5$$

So, work done in 3 days =  $1/5$

Time taken to complete the work =  $5 \times 3 = 15$

**Answer:** 15 Days