

Time and Work Questions and Answers for Bank Exams Pdf

1. Two spinning machines A and B can together produce 3,00,000 metres of cloth in hours. If machine B alone can produce the same amount of cloth in 15 hours, then how much cloth can machine A produce alone in 10 hours?

- a. 50,000 metres
- b. 1,00,000 metres
- c. 1,50,000 metres
- d. 2,00,000 metres

Ans: B

Length of cloth produced by A and B in 10 hrs
= 3,00,000 m.

Length of cloth produced by B in 10 hrs = $\left(\frac{300000}{15} \times 10\right)$ m
= 200000 m.

∴ Length of cloth produced by A in 10 hrs
= (300000 - 200000) m = 100000 m.

2. Rosa can eat 32 rosogollas in one hour. Her sister Lila needs three hours to eat the same number. How much time will they take to eat 32 rosogollas together?

- a. 45 minutes
- b. 75 minutes
- c. 90 minutes
- d. None of these

Ans: A

$$\text{Number of rosogollas eaten by Rosa in 1 minute} = \frac{32}{60}.$$

$$\text{Number of rosogollas eaten by Lila in 1 minute} = \frac{32}{180}.$$

$$\text{Number of rosogollas eaten by Rosa and Lila together in 1 minute} = \left(\frac{32}{60} + \frac{32}{180} \right) = \frac{128}{180}.$$

$$\therefore \text{Required time} = \left(32 \div \frac{128}{180} \right) = \left(\frac{32 \times 180}{128} \right) \text{min} = 45 \text{ min.}$$

3. A and B can do a work in 8 days, B and C can do the same work in 12 days. A, B and C together can finish it in 6 days. A and C together will do it in

- a. 4 days
- b. 6 days
- c. 8 days
- d. 12 days

Ans: C

$$(A + B + C)\text{'s 1 day's work} = \frac{1}{6};$$

$$(A + B)\text{'s 1 day's work} = \frac{1}{8};$$

$$(B + C)\text{'s 1 day's work} = \frac{1}{12}.$$

$$\therefore (A + C)\text{'s 1 day's work} \\ = \left(2 \times \frac{1}{6} \right) - \left(\frac{1}{8} + \frac{1}{12} \right) = \left(\frac{1}{3} - \frac{5}{24} \right) = \frac{3}{24} = \frac{1}{8}.$$

So, A and C together will do the work in 8 days.

4. A works twice as fast as B. If B can complete a work in 12 days independently, the number of days in which A and B can together finish the work is

- a. 4 days
- b. 6 days

c. 8 days

d. 18 days

Ans: A

Ratio of rates of working of A and B = 2 : 1.

So, ratio of times taken = 1 : 2.

$$\therefore \text{A's 1 day's work} = \frac{1}{6}; \text{B's 1 day's work} = \frac{1}{12}.$$

$$(\text{A} + \text{B})\text{'s 1 day's work} = \left(\frac{1}{6} + \frac{1}{12}\right) = \frac{3}{12} = \frac{1}{4}.$$

So, A and B together can finish the work in 4 days.

5. A can do a work in 15 days and B in 20 days. If they work on it together for 4 days, then the fraction of the work that is left is

(a) $\frac{1}{4}$

(b) $\frac{1}{10}$

(c) $\frac{7}{15}$

(d) $\frac{8}{15}$

a. $\frac{1}{4}$

b. $\frac{1}{10}$

c. $\frac{7}{15}$

d. $\frac{8}{15}$

Ans: D

$$\text{A's 1 day's work} = \frac{1}{15}; \text{B's 1 day's work} = \frac{1}{20}.$$

$$(\text{A} + \text{B})\text{'s 1 day's work} = \left(\frac{1}{15} + \frac{1}{20}\right) = \frac{7}{60}.$$

$$(\text{A} + \text{B})\text{'s 4 days' work} = \left(\frac{7}{60} \times 4\right) = \frac{7}{15}.$$

$$\therefore \text{Remaining work} = \left(1 - \frac{7}{15}\right) = \frac{8}{15}.$$

6. A completes $\frac{7}{10}$ of a work in 15 days. Then he completes the remaining work with the help of B in 4 days. The time required for A and B together to complete the entire work is

(a) $8\frac{1}{4}$ days

(b) $10\frac{1}{2}$ days

(c) $12\frac{2}{3}$ days

(d) $13\frac{1}{3}$ days

Ans: D

$$(A + B)\text{'s 4 days' work} = \left(1 - \frac{7}{10}\right) = \frac{3}{10}.$$

$$(A + B)\text{'s 1 day's work} = \left(\frac{3}{10} \times \frac{1}{4}\right) = \frac{3}{40}.$$

Hence, A and B together take $\frac{40}{3} = 13\frac{1}{3}$ days to complete

the entire work.

7. A and B can together finish a work in 30 days. They worked together for 20 days and then B left. After another 20 days, A finished the remaining work. In how many days A alone can finish the job?

a. 40

b. 50

c. 54

d. 60

Ans: D

$$(A + B)\text{'s } 20 \text{ days' work} = \left(\frac{1}{30} \times 20\right) = \frac{2}{3}.$$

$$\text{Remaining work} = \left(1 - \frac{2}{3}\right) = \frac{1}{3}.$$

Now, $\frac{1}{3}$ work is done by A in 20 days.

Whole work will be done by A in $(20 \times 3) = 60$ days.

8. A and B can separately do a piece of work in 20 and 15 days respectively. They worked together for 6 days, after which B was replaced by C. If the work was finished in next 4 days, then the number of days in which C alone could do the work will be

- a. 30
- b. 35
- c. 40
- d. 60

Ans: C

$$(A + B)\text{'s } 6 \text{ days' work} = 6\left(\frac{1}{20} + \frac{1}{15}\right) = \frac{7}{10};$$

$$(A + C)\text{'s } 4 \text{ days' work} = \left(1 - \frac{7}{10}\right) = \frac{3}{10};$$

$$(A + C)\text{'s } 1 \text{ day's work} = \frac{3}{40}. \quad A\text{'s } 1 \text{ day's work} = \frac{1}{20}.$$

$$\therefore C\text{'s } 1 \text{ day's work} = \left(\frac{3}{40} - \frac{1}{20}\right) = \frac{1}{40}.$$

Hence, C alone can finish the work in 40 days.

9. 10 men and 15 women together can complete a work in 6 days. It takes 100 days for one man alone to complete the same work. How many days will be required for one woman alone to complete the same work?

- a. 90

b. 125

c. 145

d. 150

e. 225

Ans: E

$$1 \text{ man's 1 day's work} = \frac{1}{100}.$$

$$(10 \text{ men} + 15 \text{ women})\text{'s 1 day's work} = \frac{1}{6}.$$

$$15 \text{ women's 1 day's work} = \left(\frac{1}{6} - \frac{10}{100}\right) = \left(\frac{1}{6} - \frac{1}{10}\right) = \frac{1}{15}.$$

$$1 \text{ woman's 1 day's work} = \frac{1}{225}.$$

∴ 1 woman alone can complete the work in 225 days.

10. A can do a piece of work in 4 hours, B and C together in 3 hours, and A and C together in 2 hours. How long will B alone take to do it?

a. 8 hours

b. 10 hours

c. 12 hours

d. 24 hours

Ans: C

$$\therefore \text{A's 1 hour's work} = \frac{1}{4};$$

$$\text{(B + C)'s 1 hour's work} = \frac{1}{3};$$

$$\text{(A + C)'s 1 hour's work} = \frac{1}{2}.$$

$$\text{(A + B + C)'s 1 hour's work} = \frac{1}{4} + \frac{1}{3} = \frac{7}{12}.$$

$$\therefore \text{B's 1 hour's work} = \text{(A + B + C)'s 1 hour's work} - \text{(A + C)'s 1 hour's work} = \frac{7}{12} - \frac{1}{2} = \frac{1}{12}.$$

So, B alone can complete the work in 12 hours.