08 August 2024 Live Classes Schedule

| 8:00AM | 08 AUGUST 2024 DAILY CURRENT AFFAIRS | RUBY MA'AM |
| 9:00AM | 08 AUGUST 2024 DAILY DEFENCE UPDATES | DIVYANSHU SIR |

SSB INTERVIEW LIVE CLASSES

| 9:00AM | INTRODUCTION OF TAT & WAT | ANURADHA MA'AM |

AFCAT 2 2024 LIVE CLASSES

| 1:00PM | MAHA MARATHON SESSION - PART 4 | |

NDA 2 2024 LIVE CLASSES

11:00AM	GK - POLITY REVISION - CLASS 1	RUBY MA'AM
12:00PM	PHYSICS REVISION - CLASS 4	NAVJYOTI SIR
1:00PM	MATHS REVISION - CLASS 4	NAVJYOTI SIR
2:00PM	BIOLOGY REVISION - CLASS 4	SHIVANGI MA'AM
5:30PM	ENGLISH - MATCHING LIST - CLASS 1	ANURADHA MA'AM

CDS 2 2024 LIVE CLASSES

11:00AM	GK - POLITY REVISION - CLASS 1	RUBY MA'AM
12:00PM	PHYSICS REVISION - CLASS 4	NAVJYOTI SIR
2:00PM	BIOLOGY REVISION - CLASS 4	SHIVANGI MA'AM
3:00PM	MATHS REVISION - CLASS 4	NAVJYOTI SIR
5:30PM	ENGLISH - MATCHING LIST - CLASS 1	ANURADHA MA'AM

REVISION TOPIC :

- **Time and Work**

Q) Two workers A and B working together completed a job in 5 days. If A worked twice as efficiently as he actually did and B worked $\frac{1}{3}$ as efficiently as he actually did, the work would have completed in 3 days. Find the time for A to complete the job alone.

(a) $6\frac{1}{4}$ days

(b) $5\frac{3}{4}$ days

(c) 5 days

(d) None of these

x days

A's 1 day work $= \left(\frac{1}{x}\right)$

B's " " " $= \frac{1}{5} - \frac{1}{x} = \frac{x-5}{5x}$

$$2\left(\frac{1}{x}\right) + \frac{1}{3}\left(\frac{x-5}{5x}\right) = \frac{1}{3}$$

$$\frac{2}{x} + \frac{x-5}{15x} = \frac{1}{3}$$

$$3(30 + x - 5) = 15x$$

$$75 + 3x = 15x$$

$$12x = 75$$

$$x = \frac{75}{12} = 6\frac{3}{12} = 6\frac{1}{4} \text{ days}$$

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B worked $\dfrac{1}{3}$ as efficiently as he actually did, the work would

have completed in 3 days. Find the time for A to complete the job alone.

(a) $6\dfrac{1}{4}$ days

(b) $5\dfrac{3}{4}$ days

(c)   5 days

(d)   None of these

Ans: (a)

Q) A contract is to be completed in 46 days and 117 men were set to work, each working 8 hours a day. After 33 days, 4/7 of the work is completed. How many additional men may be employed so that the work may be completed in time, each man now working 9 hours a day ?

(a) 80   (b) 81   (c) 82   (d) 83

$$\frac{no.\ of\ men \times no.\ of\ days \times no.\ of\ hours}{portion\ of\ work} =$$

$$W = 117 \times 8 \times 46 =$$

$$Work\ done = \frac{4}{7}\left(117 \times 8 \times 46\right) =$$

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(a) 80   (b) 81   (c) 82   (d) 83

Ans: (b)

Q) A and B can do a piece of work in 30 and 36 days respectively. They began the work together but A leaves after some days and B finished the remaining work in 25 days. After how many days did A leave? $\sim$ x days ✓

(a)   6 days   (b)   5 days   (c)   11 days (d)   10 days

$A \to \dfrac{1}{30}$

$B \to \dfrac{1}{36}$

Remaining work $= 1 - \dfrac{11x}{180} = \dfrac{169x}{180}$

$x \left(\dfrac{1}{30} + \dfrac{1}{36} \right)$

$\dfrac{\dfrac{169x}{180}}{\dfrac{1}{36}} = 25$

$x \left(\dfrac{6+5}{180} \right) = x \left(\dfrac{11}{180} \right)$

Q) *A* and *B* can do a piece of work in 30 and 36 days respectively. They began the work together but *A* leaves after some days and *B* finished the remaining work in 25 days. After how many days did *A* leave?

(a) 6 days   (b) 5 days   (c) 11 days (d) 10 days

Ans: (b)

Q) George takes 8 hours to copy a 50 page manuscript while Sonia can copy the same manuscript in 6 hours. How many hours would it take them to copy a 100 page manuscript, if they work together?

(a) $6\frac{6}{7}$ (b) 9 (c) $9\frac{5}{7}$ (d) 14

(G) 1 hour $\longrightarrow \frac{50}{8}$ pages

(S) 1 hour $\longrightarrow \frac{50}{6}$ pages

Together, no. of pages in 1 hour $= 50\left(\frac{1}{8}+\frac{1}{6}\right) = 50 \times \frac{7}{24} = \frac{175}{12}$ pages/hr

$$\frac{100 \text{ pages}}{\frac{175}{12} \text{ pages/hr}}$$

$$\frac{100 \times 12}{175} = \frac{48}{7} \text{ hrs}$$

$$= 6\frac{6}{7}$$

Q) George takes 8 hours to copy a 50 page manuscript while Sonia can copy the same manuscript in 6 hours. How many hours would it take them to copy a 100 page manuscript, if they work together?

(a) $6\dfrac{6}{7}$ (b) 9   (c) $9\dfrac{5}{7}$ (d) 14

Ans: (a)

Q) In an army camp ration is available for 100 soldiers for 10 days. After 2 days, 60 soldiers joined. Then, for how many more days will the remaining ration last? (x)

(a)   7 days

(b)   6 days

(c)   5 days

(d)   4 days

$$100 \times 10 = (100 \times 2) + (160)(x)$$

$$\frac{800}{160} = x$$

$$x = 5 \checkmark$$

Q) In an army camp ration is available for 100 soldiers for 10 days. After 2 days, 60 soldiers joined. Then, for how many more days will the remaining ration last?

(a) 7 days

(b) 6 days

(c) 5 days

(d) 4 days

Ans: (c)

Q) A is 40% more efficient than B and C is 20% less efficient than B. Working together, they can finish a work is 5 days. In how many days will A alone complete 70% of that work?

(a) 9   (b) 7   (c) 10   (d) 8

Let B do the work in x days. | B's 1 day work = $\frac{1}{x}$

$A \longrightarrow \frac{1}{x}\left(1+\frac{2}{5}\right) = \left(\frac{7}{5x}\right)$ A's 1 day work = $\frac{7}{5x}$

$C \longrightarrow \frac{1}{x}\left(1-\frac{1}{5}\right) = \frac{4}{5x}$

$$\frac{\frac{70}{100}}{\left(\frac{7}{5}x\right)} =$$

$\frac{1}{x} + \frac{7}{5x} + \frac{4}{5x} = \frac{1}{5}$ } solve for x,

Q) A is 40% more efficient than B and C is 20% less efficient than B. Working together, they can finish a work is 5 days. In how many days will A alone complete 70% of that work?

(a) 9 (b) 7 (c) 10 (d) 8

Ans: (d)

Q) A can do 50% more work than B in the same time. B alone can do a piece of work in 30 hours. B starts working and had already worked for 12 hours when A joins him. How many hours should B and A work together to complete the remaining work ?

(a)   6 hours
(b)   12 hours
(c)   4.8 hours
(d)   7.2 hours

$$12 \times \frac{1}{30} = \frac{4}{10} = \frac{2}{5}$$

$$\frac{\frac{3}{5}}{\left(\frac{1}{30} + \frac{1}{20}\right)} =$$

Let B alone completes the work in 'x' hours.

B's 1 hour   work $= \frac{1}{x} = \frac{1}{30}$ $\Bigg\}$ (30)

A "   "   " $= \frac{3}{2x} = \frac{1}{20}$

Q) A can do 50% more work than B in the same time. B alone can do a piece of work in 30 hours. B starts working and had already worked for 12 hours when A joins him. How many hours should B and A work together to complete the remaining work ?

(a)   6 hours

(b)   12 hours

(c)   4.8 hours

(d)   7.2 hours

Ans: (d)

Q) A can do a piece of work in 10 days, while B alone can do it in 15 days. They work together for 5 days and the rest of the work is done by C in 2 days. If they get ₹ 450 for the whole work, how should they divide the money ?

(a) ₹ 225, ₹ 150, ₹ 75

(b) ₹ 250, ₹ 100, ₹ 100

(c) ₹ 200, ₹ 150, ₹ 100

(d) ₹ 175, ₹ 175, ₹ 100

Q) A can do a piece of work in 10 days, while B alone can do it in 15 days. They work together for 5 days and the rest of the work is done by C in 2 days. If they get ₹ 450 for the whole work, how should they divide the money ?

(a) ₹ 225, ₹ 150, ₹ 75   (b) ₹ 250, ₹ 100, ₹ 100

(c) ₹ 200, ₹ 150, ₹ 100   (d) ₹ 175, ₹ 175, ₹ 100

Ans: (a)

Q) A and B are two taps which can fill a tank individually in 10 minutes and 20 minutes respectively. However, there is a leakage at the bottom, which can empty a filled tank in 40 minutes. If the tank is empty initially, how much time will both the taps take to fill the tank with leakage ?

(a)   2 minutes

(b)   4 minutes

(c)   5 minutes

(d)   8 minutes

Q) A and B are two taps which can fill a tank individually in 10 minutes and 20 minutes respectively. However, there is a leakage at the bottom, which can empty a filled tank in 40 minutes. If the tank is empty initially, how much time will both the taps take to fill the tank with leakage ?
   (a)   2 minutes   (b)   4 minutes
   (c)   5 minutes   (d)   8 minutes

Ans: (d)

Q) A certain number of persons can complete a work in 34 days working 9 h a day. If the number of persons is decreased by 40%, then how many hours a day should the remaining persons work to complete the work in 51 days?

(a)   19   (b) 8   (c) 12   (d) 10

Q) A certain number of persons can complete a work in 34 days working 9 h a day. If the number of persons is decreased by 40%, then how many hours a day should the remaining persons work to complete the work in 51 days?

(a) 19   (b) 8   (c) 12   (d) 10

Ans: (d)

Q) The efficiency of P is twice that of Q, whereas the efficiency of P and Q together is three times that of R. If P, Q and R work together on a job, in what ratio should they share their earnings?

(a) 2 : 1 : 1

(b) 4 : 2 : 1

(c) 4 : 3 : 2

(d) 4 : 2 : 3

Q) The efficiency of P is twice that of Q, whereas the efficiency of P and Q together is three times that of R. If P, Q and R work together on a job, in what ratio should they share their earnings?

(a) 2 : 1 : 1

(b) 4 : 2 : 1

(c) 4 : 3 : 2

(d) 4 : 2 : 3

Ans: (a)

Q) 2 men and 1 woman can complete a piece of work in 14 days, while 4 women and 2 men can do the same work in 8 days. If a man gets ₹ 90 per day, what should be the wages per day of a woman ?

(a)   ₹ 48   (b)   ₹ 60

(c)   ₹ 72   (d)   ₹ 135

Q) 2 men and 1 woman can complete a piece of work in 14 days, while 4 women and 2 men can do the same work in 8 days. If a man gets ₹ 90 per day, what should be the wages per day of a woman ?

(a) ₹ 48
(b) ₹ 60
(c) ₹ 72
(d) ₹ 135

Ans: (b)

Q) P and Q together can do a job in 6 days. Q and R can finish

the same job in $\dfrac{60}{7}$ days. P started the work and worked for

3 days. Q and R continued for 6 days. Then the difference
of days in which R and P can complete the job is

(a) 8   (b) 12   (c) 10   (d) 15

Q) P and Q together can do a job in 6 days. Q and R can finish

the same job in $\dfrac{60}{7}$ days. P started the work and worked for

3 days. Q and R continued for 6 days. Then the difference
of days in which R and P can complete the job is

(a) 8   (b) 12   (c) 10   (d) 15

Ans: (c)

REVISION TOPICS :

(09/08/24)

- **SI AND CI**

- **Time and Work**