

Manage your calculation time

This is in continuation to the last article on preparation for the Sub-Inspector of Police recruitment exam. Here are some practice questions and explanations on the Time and Work topic.

1. X and Y can do a piece of work in 10 days and 12 days respectively. If they work alternate days starting with X, the work will be finished in ____ days.

- A. 10 1/6 B. 10 5/6
C. 10 7/6 D. 10 5/9

Ans: B

Explanation:

(A+B)'s 2 day work is = $1/10 + 1/12 = 6+5/60 = 11/60$.
Work done in 5 pairs of days = $5 \times 11/60$.
Remaining work = $1 - 55/60 = 5/60$
On 11th day it's A turn,
 $5/60$ Work is done by A = $10 \times 5/60 = 5/6$ days.
Total time taken = $10 + 5/6 = 10 \times 5/6$ days.



2. A started a work and left after 2 days. Then B finished the work in 9 days. Had A left the work after working for 3 days, B would have finished the work in 6 days. Each of them working alone finish the whole work in ____ days.

- A. 5, 15 B. 15, 5
C. 6, 9 D. 9, 6

Ans: A

Explanation:

Let A finish the work in X days & B

finish the work in Y days
 $2/x + 9/y = 1$ & $3/x + 6/y = 1$
By solving, $3/x - 2/y = 6/y - 9/y$
 $Y = 3X$

By substituting Y value, will get X = 5 & Y = 15.

3. A, B and C can do a piece of work in 16 days, 24 days and 32 days viz. They started the work together but A left after 4 days and B left 3 days before the completion. The

work will be completed in ____ days

- A. 10 B. 12
C. 8 D. 7

Ans: B

Explanation:

(A+B+C)'s 1 day work = $1/16 + 1/24 + 1/32 = 6+4+3/96 = 13/96$
(A+B+C)'s 4 day work = $4 \times 13/96 = 52/96$
Work done by C in 3 days = $1/32 \times 3 = 3/32$



Remaining work = $1 - (52/96 + 3/32) = 1 - (52+9/96) = 35/96$
B and C can do 7 units of work per a day
35 units work can do in = $35/7 = 5$ days.

The work will be completed in $4+3+5=12$ days.

4. A takes as much time as B and C together take to do the work. A and B

together can do it in 20 days. If C alone can do in 30 days, B alone can do it in ____ days.

- A. 100 B. 110
C. 120 D. 130

Ans: C

Explanation:

Given, A=B+C
C = 1/30
(A+B)'s 1 day work = $1/20$
A+B+C's 1 day work = $1/20 + 1/30 = (3+2)/60 = 5/12$
B+C+B+C = $5/12$ {since, A=B+C}
 $2(B+C) = 5/12 \Rightarrow B+C = 5/24$
B = $5/24 - C = 5/24 - 1/30 = 5-4/120 = 1/120$
B alone can do it in 120 days.

5. To do a job B takes three times as long as (A+C) can do together and C twice as long as (A+B) can do together. If the three men together complete the work in 50 days, each takes separately for ____ days.

- A. 120-200-150 B. 120-150-200
C. 120-200-180 D. 120-150-300

Ans: A

Explanation:

Given, $3B=A+C$;
 $2C=A+B$
A+B+C = $1/50$
 $3B+B = 1/50$
(since, $3B=A+C$), B = $1/200$
B did work in 200 days.
 $2C+C = 1/50 \Rightarrow C = 1/150$
C did work in 150 days.
A = $1/50 - (1/200 + 1/150) = 12-7/600 = 1/120$
A did work in 120 days



Banda Ravipal Reddy,
Director, SIGMA,
Sai Institute of General
Mental Ability
Ph. 9491614131

TO BE CONTINUED...

Why it's important to have a timetable in your life

Sticking to a timetable may seem tedious, but in the long run, a timetable can be a saviour for people who find it difficult to manage their time. TSPSC aspirants who are working and applying for posts in the State government can also benefit from a timetable as it will tell them when they need to study in their busy schedule.

Smooth work

With a timetable, every hour of the day is regimented. There is no scope for negligence. With social media and mobiles to distract us from our work, having a timetable makes one accountable when it comes to preparation.

Equal allocation of time

Since the entire day is divided into different things one needs to get through the day, there is no way to spend more time on one activity than what you have allotted right at the time of planning the timetable. There is no fear of spending too much on one subject or activity. This is especially helpful for aspirants who are working jobs and preparing for the exams.

Discipline

People who are working or finding it tough



to stick to a routine will be beneficial as it lets them follow the study plan in a methodical manner. When one follows a timetable, it also gives one a sense of satisfaction at the end of the day.

Manage content

Studying all day means you are going to get

tired and bored slogging all day. Study topics which are most interesting to you or which you already excel at can be handled at a particular time slot or day of the week. A timetable gives you an idea what subject you are going to be studying at which time. So, your brain will also look forward to studying your favourite subject.

A timetable makes students more competitive as they need to finish a task under a specific time period. It will prepare you for the next phase of your life and career

Positive impact

Impossible will become possible. When you feel you won't be able to do a particular task or won't be able to meet the deadline, a timetable helps to achieve it. It lets you achieve a balance between your personal, work life and studies. Following timetable will prepare you for the next phase of your life and career. A timetable makes students more competitive as they need to finish a task under a specific time period.

Keep time for fun

Stick to a timetable, but also include time for hobbies and relaxation in there. 'All work and no play makes Jack a dull boy' goes the saying. So, leave some time catch up with friends who share similar aspirations and will understand your concerns, or do light exercise to re-energise yourself.