

## **TIME & WORK – Complete Sheet**

### **WARM UP PRACTICE SET 01**

#### **PRACTICE PREVIOUS SET:**

**QUESTION :** 3 toys maker Mahesh, Suresh and Ramesh take a contract of making toys. Mahesh alone can make the entire toys in 12 days while Suresh alone can make the entire toys in 15 days and Ramesh can destroy the entire toys in 20 days.

1) How much time will Mahesh and Suresh take to make all toys if Mahesh and Suresh work together?

2) How much time will they take to make the entire toys if all 3 work together?

3) How much time will Mahesh and Suresh take to make the entire toys and if they work on alternate days with Mahesh starting on the first day?

4) In the previous question, when will the work be complete if all 3 work on alternate days, with Mahesh working on first day, Suresh on second day, Ramesh on third day, and this process repeats till work is complete?

**Q.5** Bunnu, Gaffur and Ram can do a work in 10, 12 and 15 days respectively knowing that they work together and get an amount of Rs. 1500. What is the share of Gaffur in that amount?

(a) Rs 300 (b) Rs 500 (c) Rs 450 (d) Rs 400 (e) None of these

**Q6.** A and B working separately can do a piece of work in 9 and 12 days, respectively. If they work for a day alternately with A beginning, the work would be complete in:

(a)  $10 \frac{2}{3}$  days (b)  $10 \frac{1}{2}$  days (c)  $10 \frac{1}{4}$  days (d)  $10 \frac{1}{3}$  days (e) None of these

**Q7.** A machine A can print one thousand books in 10 hours, machine B can print the same number of books in 12 hours while machine C print them in 15 hours. All the machines are started at 9 a.m. while machine A is closed at 11 a.m. and the remaining two machines complete the work. Approximately at what time will the work be finished?

(a) 11:30 a.m. (b) 12 noon (c) 12:30 pm (d) 2:20 pm (e) None of these

**Q8.** If A can do a work in 10 days, B can do it in 20 days and C in 30 days in how many days will the three together do it?

A. 6.25 days B. 5.45 days C. 3.75 days D. 6 days

**Q9.** A man can do a piece of work in 5 days, but with the help of his son, he can do it in 3 days. In what time can the son do it alone?

A.  $16/3$  B. 6 C. 9 D.  $15/2$

## WARM UP SET 02

Q 1. Reema can complete a piece of work in 12 days while Seema can the same work in 18 days. If they both work together, then how many days will be required to finish the work?

a. 6 days b. 7.2 days c. 9.5 days d. 12 days

Q 2. If 'A' completes a piece of work in 3 days, which 'B' completes it in 5 days and 'C' takes 10 days to complete the same work. How long will they take to complete the work, if they work together?

a. 1.5 days b. 4.5 days c. 7 days d. 9.8 days

Q 3. Two painters 'P1' & 'P2' paint the bungalow in 3 days. If P1 alone can paint the bungalow in 12 days, in how many days can 'P2' alone complete the same paint work?

a. 4 days b. 6 days c. 9 days d. 12 days

Q 4. A & B can make paintings in 6 days, B & C can make those paintings in 10 days. If A, B & C together can finish the work in 4 days, then A & C together will do it in \_\_\_\_\_ days.

a.  $4 \frac{2}{7}$  days b.  $1 \frac{1}{8}$  days c.  $2 \frac{2}{5}$  days d.  $6 \frac{3}{8}$  days

Q.5 . A and B undertake to do a piece of work for Rs. 500. A alone can do it in 8 days while B alone can do it in 10 days. With the help of C, they finish it in 4 days. Find the share of each.

Q.6 A alone can complete a work in 16 days and B alone can do in 12 days. Starting with A, they work on alternate days. The total work will be completed in

Q.7. . P can do a piece of work in 10 days, which Q can finish in 15 days. If they work on alternate days with P beginning, in how many days the work will be finished?

(a) 12 days (b) 18 days (C) 10 (D) 6

Q.8 .P, Q and R can do a work in 20, 30 and 60 days respectively. How many days does it need to complete the work if P does the work and he is assisted by Q and R on every third day?

(a) 30 days (b) 25 days (c) 15days (d) 10 days

Q.9 .A and B alone can do a piece of work in 8 and 18 days respectively. In how many days the work will be completed if they both work on alternate days starting with A?

A)  $6\frac{5}{9}$  days B) 5 days C)  $10\frac{7}{9}$  days D)  $10\frac{9}{7}$  days E) not

10) A and B can do a piece of work in 30 days, while B and C can do the same work in 24 days and C and A in 20 days. They all work together for 10 days when B and C leave. How many days more will A take to finish the work? a) 18 days b) 24 days c) 30 days d) 36 days e) None of these

**TYPE-( ) LEFT before the completion of the work**

Q 11) Aman can do a piece of work in 14 days, while Suneeta can do the same work in 21 days. They started the work together but 3 days before the completion of the work, Aman left the work. The total number of days to complete the work is :

a)7 b) 8.5 c) 10.5 d)10.2 e) None of these

Q.12) A, B and C can alone complete a work in 10, 12 and 15 days respectively. All started the work but B left the work 3 days before completion. How much work was then done by A and B together in the total work?

A)  $\frac{2}{3}$  B)  $\frac{3}{4}$  C)  $\frac{1}{3}$  D)  $\frac{3}{5}$  E)  $\frac{2}{5}$

**TYPE \*\*\*CHAIN RULE**

Q 1. If 30 men can do a piece of work in 20 hours, then in how many hours will 12 men do it?

a. 18 hours b. 30 hours c. 40 hours d. 50 hours

Q 2. 3 pumps, working 4 hours a day, can empty a tank in 2 days. How many hours a day must 4 pumps work, to empty the

tank in one day?

a. 7 hours b. 8 hours c. 6 hours d. 5 hours

### Type 2: Direct proportion

Q 3. If 30 men can build a wall 56 meters long in 5 days, what length of a similar wall can be built by 40 men in 3 days?

- a. 36.5 m
- b. 44.8 m
- c. 62.3 m
- d. 92 m

Q 4. If 8 men can reap 40 hectares in 12 days, then how many hectares can 30 men reap in 20 days?

- a. 175 hectares
- b. 225 hectares
- c. 250 hectares
- d. 275 hectares

### Type 3: Combination of Direct and Indirect proportion

Q 5. If 3 spiders make 3 webs in 3 days, then 1 spider will make 1 web in how many days?

- a. 1 day
- b. 1.5 days
- c. 3 days
- d. 6 days

Q 6. In a dairy farm, 20 cows eat 20 bags in 20 days. In how many days one cow will eat one bag of husk?

- a. 10 days
- b. 1/10 days
- c. 20 days
- d. 40 days

Q 7. 18 men bind 900 books in 10 days. Find how many binders will be required to bind 600 books in 12 days?

- a. 10
- b. 11
- c. 13
- d. 15

QUESTION 08) 12 examiners (men) work 16 hours a day to check 24000 answer sheets in 18 days. Now, 24 examiners would work how many hours per day to check 36000 answer sheets in 36 days?

QUESTION 09) 12 examiners work 16 hours a day to check 24000 answer sheets in 18 days. Now, 24 examiners would check how many answer sheets working 6 hours a day in 36 days?

QUESTION 10) A certain number of men can complete a piece of work in 180 days. If there are 30 men less, it will take 20 days more for the work to be completed. How many men were there originally?

Q11) A fort had provision of food for 150 men for 45 days. After 10 days, 25 men left the fort. The number of days for which the remaining food will last, is:

- |                                |                                |
|--------------------------------|--------------------------------|
| <input type="checkbox"/> A) 29 | <input type="checkbox"/> B) 37 |
| <input type="checkbox"/> C) 42 | <input type="checkbox"/> D) 54 |

Q.12) If 100 cats kill 100 mice in 100 days, then 4 cats would kill 4 mice in how many days ?

- A. 1 day      B. 4 days      C. 40 days      D. 100 days

### TYPE - contractor undertook work

Q.11 .A JOB HAS TO FINISHED IN 60DAYS .40 MEN START THE WORK ,EACH WORKING 8 HRS A DAY .AFTER 20 DAYS JUST 1/4TH OF THE WORK IS FINISHED .HOW MANY ADDITIONAL MEN NEED TO BE ENGAGED TO COMPLETE THE WORK ON TIME ,IF ALL OF THEM HAVE NOW BEEN ASKED TO WORK FOR 10HRS A DAY ?

- A.48 MEN      B.8 MEN      C.10 DAYS      D.NOT

Q.12 A JOB HAS TO FINISHED IN 80 DAYS .20 MEN START THE WORK ,EACH WORKING 6 HRS A DAY .AFTER 60 DAYS JUST  $1/2$ TH OF THE WORK IS FINISHED .HOW MANY ADDITIONAL MEN NEED TO BE ENGAGED TO COMPLETE THE WORK ON TIME ,IF ALL OF THEM HAVE NOW BEEN ASKED TO WORK FOR 4 HRS A DAY ?

A.90MEN      B.7 MEN      C.70 DAYS      D.NOT

Q.13 A contractor undertook to complete the work in 40 days and he deployed 20 men for his work. 8 days before the scheduled time he realized that  $1/3$ rd of the work was still to be done. How many more men were required to complete the work in stipulated time? a) 16 b) 15 c) 20 d) 25 e) None of these

### \*\*\* TYPE- EFFICIENCY BASED

1)A is 30% more efficient than B. How much time will they, working together, take to complete a job which A alone could have done in 23 days?

a) 11 days b) 13 days c)20 d) Data inadequate e) None of these

2)Sakshi can do a piece of work in 20 days. Tanya is 25% more efficient than Sakshi. The number of days taken by Tanya to do the same piece of work is:

a) 15 b) 16 c) 18 d) 25 e) None of these

3)A alone can complete a work in 21 days. If B is 40% more efficient than A, then in how many days A and B together can complete the work?

A)  $8 \frac{1}{4}$  days      B)  $8 \frac{3}{4}$  days C) 9 days      D)  $10 \frac{3}{4}$  days      E)  $11 \frac{1}{3}$  days

3) 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 in:

a) 4 days b) 6 days c) 8 days d) 18 days e) None of these

4 )A takes twice as much time as B or thrice as much time as C to finish a piece of work. Working together, they can finish the work in 2 days. B can do the work alone in:

a) 4 days b) 6 days c) 8 days d) 12 days e) None of these

Q 5). Monika is twice as good as Sonika and together they complete a piece of work in 20 days. In how many days will Monika alone will finish the work?

a. 22 days      b. 30 days      c. 37 days      d. 52 days

## TYPE - PIZZA CONCEPT :

**Q1. A can do  $\frac{1}{4}$  of a work in 3 days and B can do  $\frac{1}{6}$  of the same work in 4 days, how much will A get if both work together and are paid Rs. 180 in all?**

1 : Rs 150    2 : Rs 100    3 : Rs 120    4 : Rs 160    5 : None of these

2) A does 80% of a work in 20 days. He then calls in B and they together finish the remaining work in 3 days. How long B alone would take to do the whole work? a) 23 days b) 37 days c) 37 d) 40 days e) None of these

3) X can do a piece of work in 40 days. He works at it for 8 days and then Y finished it in 16 days. How long will they together take to complete the work? a) 13 b) A.  $13 \frac{1}{3}$  days c) 20 days d) 26 days e) None of these

4) A and B can together finish a work 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 work?

a) 45 b) 50 c) 54 d) 60 e) None of these

## CONCEPT - LESS THAN DAYS (EFFICIENCY DIFFERENCE )

1) P is thrice as efficient as Q and is therefore able to finish a piece of work in 60 days less than Q. Find the time in which P and Q can complete the work individually. a) 90 days, 30 days b) 60 days, 20 days c) 65 days, 30 days d) 85 days, 90 days e) None of these

2) A is twice as good a workman as B and is therefore able to finish a piece of work in 30 days less than B. Find the time in which A and B can complete the work together

3). Pooja is twice as efficient as Aarti and takes 90 days less than Aarti to complete the job. Find the time in which they can finish the job together.

- a. 30 days    b. 45 days    c. 60 days    d. 90 days

### TYPE MEN/WOMEN-“AND”

Q.1) 4 men and 6 women can complete a work in 8 days, while 3 men and 7 women can complete it in 10 days. In how many days will 10 women complete it?

- a) 35            b) 40            c) 45            d) 50            e) None of these

Q2) 2 men and 3 women can together complete a piece of work in 4 days and 3 men and 2 women together can complete work in 3 days. In how many days 10 women will complete this work?

- A) 9 days    B) 6 days    C) 7 days    D) 12 days    E) 10 days

Q.3) 10 women can complete a work in 7 days and 10 children take 14 days to complete the work. How many days will 5 women and 10 children take to complete the work?

- a) 3 b) 5 c) 7 d) Data inadequate e) None of these

### TYPE MEN/WOMEN-“OR”

Q.1) If 2 men or 3 women or 4 boys can do a piece of work in 52 days, then the same piece of work will be done by 1 man, 1 woman and 1 boy in :

- a) 48 days b) 36 days c) 45 days d) Data inadequate e) None of these

## ADVANCE SHEET 01 - TIME AND WORK

Q.1 2 Men & 3 women completed a task in 12 days. If the women are at least half as efficient as the men, but not more efficient than the men, what is the range of the number of days for 3 women & 1 man to complete the same task?

- A. 16 to 17.5    b. 16.8 to 17.5    c. 15 to 17.5    d. 15 to 16.8 days

Q2 .Arun and Satyam can complete a work individually in 12 working days and 15 working days respectively with their full efficiencies. Arun does work only on Monday, Wednesday and Friday while Satyam does the work on Tuesday, Thursday and Saturday. Sunday is always off. But Arun and Satyam both work with half of their efficiencies on Friday and Saturday respectively. If Arun



started the work on 1st January which falls on Monday followed by Satyam on the next day and so on (i.e., they work collectively in alternate days), then on which day work will be completed?

(a) Tuesday (b) Wednesday (c) Thursday (d) Friday

**Q.3** “A” can complete a piece of work in 8 days ,while “B” is 20% more efficient than him.A works for 2 days ,then B works for 1 day,and the cycle continues like this.in how many days would the work be completed? a. $7\frac{3}{5}$  b.7 days c. $7\frac{7}{9}$  d.not

**Q4** A & B TOGETHER CAN DO IN 12 DAYS WHICH B & C TOGETHER CAN DO IN 16 DAYS.AFTER A HAS BEEN WORKING FOR 5 DAYS,B 7 DAYS C FINISHES IN 13 DAYS .IN HOW MANY DAYS B COULD FINISH THE WORK ?

A.12 DAYS B.16 C.24 D.48

**Q.5**

.There are three taps a,b,c .a takes 4 times the time taken by b & c together to fill the tank .c takes 5 times the time taken by a& b together to fill the tank .in how much time can a fill the tank alone ,if the three taps together require 1hr 12min to fill the tank?

a.6 hrs b.5hrs c.7hrs d.not

**Q.6** TIME TAKEN BY A ALONE TO FINISH THE WORK 300% MORE THAN THE TIME TAKEN BY A & B TOGETHER . B IS TWICE AS EFFICIENT THAN C .IF B & C TOGETHER CAN COMPLETE THE WORK IN 8 DAYS,THEN HOW MANY DAYS WILL A ALONE TAKE TO COMPLETE THE WORK ?

A.36 DAYS B.30 DAYS C.32DAYS D.NOT

**Q.7**

.THERE ARE THREE TAPS A,B,C .A TAKES 4 TIMES THE TIME TAKEN BY B & C TOGETHER TO FILL THE TANK .C TAKES 5 TIMES THE TIME TAKEN BY A& B TOGETHER TO FILL THE TANK .IN HOW MUCH TIME CAN A FILL THE TANK ALONE ,IF THE THREE TAPS TOGETHER REQUIRE 1HR 12MIN TO FILL THE TANK?

A.6 HRS B.5HRS C.7HRS D.NOT

Q.5 Time taken by P alone to finish a work is 50% more than the time taken by P and Q together. Q is thrice as efficient as R. If Q and R together can complete the work in 22.5 days, then how many days will P alone take to complete the work?

- A.17                      C.15  
B.11                      D.NOT