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## Time and work Questions for Bank Clerk Pre Exams - Time and work Quiz at Smartkeeda.

Time and work Quiz 1
Directions: Study the following Questions carefully and choose the right answer:

1. $P$ is thrice as good a workman as $Q$ and together they finish a piece of work in 24 days. The number of days taken by $P$ alone to finish the work is:
A. 25 days
B. 22 days
C. 32 days
D. 34 days
E. None of these
2. $A$ and $B$ together can complete a particular task in 4 days. If $A$ alone can complete the same task in 12 days. How many days will $B$ take to complete the task if he works alone?
A. 9 days
B. 7 days
C. 5 days
D. 3 days
E. None of these
3. 6 women can complete a piece of work in 10 days, whereas 10 children alone take 15 days to complete the same piece of work. How many days will 6 women and 10 children together take to complete the piece of work?
A. 7
B. 8
C. 6
D. 4
E. None of these
4. Salim taken 8 days to finish a piece of work. Manoj takes 12 days to finish the same piece of work. Raj works twice as fast as Salim. How many days will all three of them together take to finish the same piece of work?
A. $2 \frac{3}{11}$
B. $3 \frac{8}{13}$
C. $3 \frac{9}{13}$
D. $2 \frac{9}{13}$
E. $2 \frac{2}{11}$
5. A and B together can finish a work in 9 days. A alone can finish the work in 12 days. In how many days will $B$ alone finish the work?
A. 24
B. 28
C. 32
D. 36
E. None of these
6. 18 women can complete a work in 12 days and 12 men can complete the same work in 9 days. In how many days will 8 men and 8 women complete that work?
A. 9
B. 6
C. 12
D. 8
E. None of these
7. $A$ and $B$ together can complete a task in 20 days. $B$ and $C$ together can complete the same task in 30 days. A and $C$ together can complete the same task in 40 days. What is the respective ratio of the number of days taken by $A$ when completing the same task alone to the number of days taken by C when completing the same task alone?
A. $2: 5$
B. $2: 7$
C. $3: 7$
D. $1: 5$
E. $3: 5$
8.4 girls can do a piece of work in 8 days, same work 3 boys can do in 9 days, 7 men in 2 days and 5 women in 4 days. Who among them have the minimum capacity of work?
A. Boy
B. Girl
C. Man
D. Woman
E. Both boy and man
8. A single person takes 10 minutes to stitch a bag. If from 10.00 a.m. to 12.30 p.m., 1245 bags are to be stitched how many persons should be employed on this job?
A. 81
B. 82
C. 83
D. 84
E. None of these
9. B and $C$ together can complete a work in 8 days. $A$ and $B$, and $A$ and $C$ together can complete the same work in 12 days and 16 days respectively. In how many days can A, B and C together complete the same work?
A. $3 \frac{9}{13}$ days
B. $7 \frac{5}{13}$ days
C. $7 \frac{5}{12}$ days
D. $3 \frac{5}{12}$ days
E. None of these

## Correct Answers:

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ | $\mathbf{1 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C | E | C | E | D | A | D | B | C | B |

## Explanations:

1. P's 1 days' work) : (Q's 1 days' work) $=3: 1$
$(P+Q)$ 's = 1 days work $=\frac{1}{24}$
Divide $\frac{1}{24}$ in the ratio $3: 1$

P's 1 day's work
$=\left[\frac{1}{24} \times \frac{3}{4}\right] \Rightarrow \frac{1}{32}$.

Hence, P alone can finish the work in 32 days.
Hence, option C is correct.
2. To solve this question, we can apply a short trick approach;

If $A$ and $B$ together can do a piece of work in $x$ day and $A$ alone can do it in $y$ days, then $B$ alone can do the work in $\frac{x y}{y-x}$ days.

Given:
$A$ and $B$ together finish a piece of work $=x=4$ days
A alone finish a piece of work $=y=12$ days.
By the short trick approach:
$B$ alone can do the whole work in
$\frac{4 \times 12}{12-4}=\frac{48}{8}=6$ days
Hence, option E is correct.
3.

6 Women's 1 day's work $=\frac{1}{10}$;

10 Children's 1 day's work $=\frac{1}{15}$;
( 6 women +10 children)'s 1 day's work
$=\left(\frac{1}{10}+\frac{1}{15}\right)=\frac{5}{30}=\frac{1}{6}$.
$\therefore 6$ women and 10 children will complete the work in 6 days.
Hence, option C is correct.
4. To solve this question, we can apply a short trick approach;

If $A, B$ and $C$ can do a work in $x, y$ and $z$ days respectively then all of them working together
can finish the work in $\left(\frac{x y z}{x y+y z+z x}\right)$ days

Given:
Time taken by Salim $=x=8$ days
Time taken by Manoj $=y=12$ days
Time taken by Raj (Twice as fast as Salim) $=\mathrm{z}=\frac{8}{2}=4$ days
By the short trick approach:
$A, B$ and $C$ can do the work in
$=\frac{8 \times 12 \times 4}{8 \times 12+12 \times 4+4 \times 8}$

After taking 8 as a common term we get,
$=\frac{48}{12+6+4}$
$=\frac{48}{22}=\frac{24}{11}=2 \frac{2}{11}$ days
Hence, option E is correct.
5. To solve this question, we can apply a short trick approach;

If $A$ and $B$ together can do a piece of work in $x$ day and $A$ alone can do it in $y$ days, then $B$ alone can do the work in $\frac{x y}{y-x}$ days.

Given:
Time taken by $A$ and $B$ together to finish a piece of work $=x=9$ days
Time taken by A alone to finish the same piece of work $=y=12$ days.
By the short trick approach:
$B$ alone can do the whole work in
$\frac{12 \times 9}{12-9}=\frac{108}{3}=36$ days
Hence, option D is correct.
6. 1 woman's 1 day's work
$=\frac{1}{12 \times 18}=\frac{1}{216}$;

1 man's 1 day's work
$=\frac{1}{12 \times 9}=\frac{1}{108}$;
( 8 men +8 women)'s 1 day's work
$=\left(\frac{8}{108}+\frac{8}{216}\right)=\left(\frac{2}{27}+\frac{1}{27}\right)=\frac{3}{27}=\frac{1}{9}$.
$\therefore 8$ men and 8 women will complete the work in 9 days.
Hence, option A is correct.
7. To solve this question, we can apply a short trick approach;

If $A$ and $B$ can do a piece of work in $x$ days, $B$ and $C$ in $y$ days, $C$ and $A$ in $z$ days, then ' $C$ ' working alone will do the same work in
$\left[\frac{2 x y z}{x y+z x-y z}\right]$ days.
$A$ and $B$ together finish a piece work $=x=20$ days
$B$ and $C$ together finish a piece work $=y=30$ days
C and A together finish a piece work $=z=40$ days
By the short trick approach: C can do the work in
$=\frac{2 \times 20 \times 30 \times 40}{20 \times 30+40 \times 20-30 \times 40}$ days
After taking 20 as a common term we get,
$=\frac{2 \times 30 \times 40}{30+40-60}=\frac{60 \times 40}{10}=240$ days

## ' A ' working alone will do the same work in

$$
\left[\frac{2 x y z}{x y+y z-z x}\right] d a y s
$$

A can do the work in
$=\frac{2 \times 20 \times 30 \times 40}{20 \times 30+30 \times 40-40 \times 20}$ days
After taking 20 as a common term we get,
$=\frac{2 \times 30 \times 40}{30+60-40}=\frac{60 \times 40}{50}=48$ days.

So, the ratio between A and C will be:

48:240=1:5
Hence, option D is correct.
8. From the given information,
$(8 \times 4)$ Girls $\equiv(9 \times 3)$ Boys $\equiv(7 \times 2)$ Men $\equiv(5 \times 4)$ Women
$\therefore 32$ Girls $\equiv 27$ Boys $\equiv 14$ Men $\equiv 20$ Women
Hence Girls have minimum capacity of work among them.
Hence, option B is correct.
9. To solve this question, we can apply a short trick approach
$\mathrm{M}_{1} \mathrm{D}_{1} \mathrm{~W}_{2}=\mathrm{M}_{2} \mathrm{D}_{2} \mathrm{~W}_{1}$
Given,
$M_{1}=1, D_{1}=10 \mathrm{mins}, W_{2}=1245$
$\mathrm{M}_{2}=\mathrm{X}, \mathrm{D}_{1}=2 \mathrm{~h}+30 \mathrm{mins}=150 \mathrm{mins}, \mathrm{W}_{1}=1$
By the short trick approach, we get
$=1 \times 10 \times 1245=X \times 150 \times 1$
$X=\frac{1245 \times 10}{150}=83$ Persons
Hence, option C is correct.
10. To solve this question, we can apply a short trick approach;
$(A+B+C)$ together finish the work in

$$
\left[\frac{2 x y z}{x y+y z+z x}\right] d a y s
$$

$A$ and $B$ together finish a piece work $=x=12$ days
$B$ and $C$ together finish a piece work $=y=8$ days
C and $A$ together finish a piece work $=z=16$ days
By the short trick approach:
$A, B$ and $C$ can do the work in
$=\frac{2 \times 12 \times 8 \times 16}{12 \times 8+8 \times 16+16 \times 12}$ days
After taking 8 as a common term we get,
$=\frac{2 \times 12 \times 16}{12+16+24}$ days

After taking 4 as a common term we get,
$=\frac{2 \times 3 \times 16}{3+4+6}$ days $=\frac{96}{13}=7 \frac{5}{13}$ days

Hence, option B is correct.


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