PLACEMENT TEST - 07.02.2023

## NAME:

REG NO:

| SL NO | QUESTION | ANSWER |
| :---: | :---: | :---: |
| 1 | A certain number of men can finish a job in 90 days. If there were 16 more men, the work could have been completed 18 days earlier. How many men were there initially? |  |
| 2 | 12 men can build a wall 100 metres long, 3 metres high and 0.5 meter thick in 25 days. In how many days will 20 men build a wall 60 metres long, 4 metres high and 0.25 metres thick? |  |
| 3 | A man works twice as fast as a woman. A woman works twice as fast as a child. If 16 men can complete a job in 12 days, then how many days would be required for 32 women and 64 children together to complete the same job? |  |
| 4 | A tap requires 18 hours to fill a tank. On a particular day, it was noticed that 18 hours after the tap was turned open, the tank was not filled due to leak at the bottom of the tank. The leak was plugged and it took the tap 3 more hours to fill the tank. Working alone, how long will the leak take to empty the tank? |  |
| 5 | gets completed. If the same |  |
| 6 | 4 men and 4 women can build a room in 5 days. 7 men and 2 women will take 4 days to complete the same piece of work. How many days will 6 men and 1 woman take to complete twice the job? |  |
| 7 | If 3 men or 4 women can reap a field in 43 days, how long will 7 men and 5 women take to reap it? |  |
| 8 | Rajeev takes one hour to arrange 96 books. Sanjeev takes one and a half hour to arrange the same number of books. Working together, how many hours will they take to arrange 4000 books? |  |
| 9 | Anil, Benny and Cyril work for a ship building company. Anil can build a ship in 10 days while Benny can build the same ship in 8 days. Working together, all three of them can build a similar ship in 4 days. In how many days can Cyril alone build it? |  |
| 10 | $A$ and $B$ can do a piece of work in 30 days. $B$ and $C$ can do it in 37.5 days. $C$ and $A$ can do it in 50 days. In how <br> many days will they finish, if $\mathrm{A}, \mathrm{B}$ and C work together? |  |
| 11 | A, working alone can make a cabinet in 12 days. $B$ will take 6 days more than $A$ to do the same work. $A$ and $B$ along with the help of $C$ completes it in 5 days. If they are paid Rs. 9000 for the job, find C's share. |  |
| 12 | Two taps $X$ and $Y$ can fill a cistern in 32 and 40 minutes respectively. Both the taps are opened into the empty cisterns and after some time tap $X$ is closed. <br> Tap Y alone fills the remaining portion of the cistern. If it took 25 minutes to fill the tank, for how much time was tap kept open? |  |
| 13 | If $A$ and $B$ together can complete a piece of work in 15 days and $B$ alone in 20 days, in how many days can A alone complete the work? |  |
| 14 | Taps $X$ and $Y$ can fill a tank in 30 and 40 minutes respectively. Tap $Z$ can empty the filled tank in 60 minutes. If all the three taps are kept open for one minute each, how much time will the taps take to fill the tank? |  |
| 15 | A tap requires 18 hours to fill a tank. On a particular day, it was noticed that 18 hours after the tap was turned open, the tank was not filled due to leak at the bottom of the tank. The leak was plugged and it took the tap 3 more hours to fill the tank. Working alone, how long will the leak take to empty the tank? |  |
| 16 | For a given distribution of marks mean is 35.16 and its standard deviation is 19.76. The coefficient of variation is |  |
| 17 | If the mean of a few observations is 60 and standard deviation is 12 , then what is the coefficient of variation? |  |
| 18 | When mean of a group is 79 and variance is 64, C.V. $=$ |  |
| 19 | The mean of a table is 20 and standard deviation is 5 , then its coefficient of variation is : |  |
| 20 | If the mean of a frequency distribution is 100 and the coefficient of variation is $45 \%$, then what is the value of the variance? |  |
| 21 | If the mean of a certain set of data is 16 and variance is 4 then find the coefficient of variance. |  |
| 22 | For the recorded observation, the coefficient of variation is 20 and the variance is 16 . The arithmetic mean is: |  |


| 23 | If the mean and coefficient of variation of a data set are 25.6 and 18.75 respectively then find the standard deviation for the same data set. |  |
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| 24 | If the mean of few observations is 40 and standard deviation is 8 , then what is the coefficient of variation? |  |
| 25 | If coefficient of variation is $25 \times 2$ and standard deviation is $12 x$, then Arthmatic mean is |  |
| 26 | If Arithmetic mean and coefficient of variation of $x$ are 10 and 40 respectively, then the variance of $y=10-2 x$ is: |  |
| 27 | In an Arithmetic Progression, if a $=28, \mathrm{~d}=-4, \mathrm{n}=7$, then an is: |  |
| 28 | If $\mathrm{a}=10$ and $\mathrm{d}=10$, then first four terms will be: |  |
| 29 | 11th term of the A.P. $-3,-1 / 2,2 \ldots$. Is |  |
| 30 | If the standard deviation and coefficient of variation of some observations are 1.2 and 25.6 respectively then find the mean value for the same observations ? |  |
| 31 | A dog runs from one side of a road to the other. The road is 80.0 meters across. The dog takes 16.0 seconds to cross the road. What is the speed of the dog? |  |
| 32 | A motorboat covers a certain distance downstream in 30 minutes, while it comes back in 45 minutes. If the speed of the stream is $5 \mathrm{~km} / \mathrm{h}$ what is the speed of the boat in still water? |  |
| 33 | 5 A kid takes 6 hours for walking to a certain place and riding back. He would have taken 2 hours less by riding both ways. What will be the time required by him to walk both ways? |  |
| 34 | $(P)$ So, for many people, it may seem appropriate to marry for money rather than love. <br> (Q) Nowadays, money is one of the most significant elements in our lives. <br> (R) Certainly, money plays an important part in our lives. <br> $(\mathrm{S})$ It is challenging for any persons to accept a partner who does not have money, or at least a job to take care of their future family. |  |
| 35 | Which of the following is not a quadratic equation? <br> (a) $x^{2}+3 x-5=0$ <br> (b) $x^{2}+x 3+2=0$ <br> (c) $3+x+x^{2}=0$ <br> (d) $x^{2}-9=0$ |  |
| 36 | The quadratic equation has degree |  |
| 37 | The cubic equation has degree |  |
| 38 | The polynomial equation $x(x+1)+8=(x+2)\{x-2)$ is |  |
| 39 | The roots of the quadratic equation $6 x^{2}-x-2=0$ are |  |
| 40 | The quadratic equation whose roots are 1 and |  |
| 41 | The quadratic equation whose one rational root is $3+\sqrt{ } 2$ is |  |
| 42 | The equation $2 x^{2}+k x+3=0$ has two equal roots, then the value of $k$ is |  |
| 43 | The roots of the quadratic equation $2 x^{2}-2 \sqrt{2 x}+1=0$ are |  |
| 44 | The sum of the roots of the quadratic equation $3 \times 2-9 x+5=0$ is |  |
| 45 | If the roots of $\mathrm{ax} 2+\mathrm{bx}+\mathrm{c}=0$ are in the ratio $\mathrm{m}: \mathrm{n}$, then |  |

