| Que:31 | The question given below is followed by two statements, A and B. Mark the answer using the following instructions: <br> Mark (a) if the question can be answered by using FIRST statement alone. <br> Mark (b) if the question can be answered by using SECOND statement alone. <br> Mark (c) if the question can be answered by using either statement alone. <br> Mark (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. <br> Mark (e) if the question cannot be answered even by using both the statements together. <br> If ' $a$ ' and ' $b$ ' are positive numbers, is $b>a$ ? <br> 1. $\mathrm{A}^{2}>\mathrm{b}$. <br> 2. $\mathrm{A}^{2}>\mathrm{b}^{2}$. |
| :---: | :---: |
| Que:32 | The question given below is followed by two statements, A and B. Mark the answer using the following instructions: <br> Mark (a) if the question can be answered by using FIRST statement alone. <br> Mark (b) if the question can be answered by using SECOND statement alone. <br> Mark (c) if the question can be answered by using either statement alone. <br> Mark (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. <br> Mark (e) if the question cannot be answered even by using both the statements together. <br> Which of the four numbers $a, b, c$ and $d$ is the largest? <br> 1. The average of $\mathrm{a}, \mathrm{b}, \mathrm{c}$ and d is 25 . <br> 2. The numbers $a, b$ and $c$ are each less than 24 . |
| Que:33 | The question given below is followed by two statements, A and B. Mark the answer using the following instructions: <br> Mark (a) if the question can be answered by using FIRST statement alone. <br> Mark (b) if the question can be answered by using SECOND statement alone. <br> Mark (c) if the question can be answered by using either statement alone. <br> Mark (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. <br> Mark (e) if the question cannot be answered even by using both the statements together. <br> In an examination of five papers, marks obtained by Rez are in the ratio 4:5:6:7:8 across the five papers. Each paper carries the same maximum marks. In how many papers did Rez obtain more than $50 \%$ of the maximum marks? <br> 1. Total marks obtained by Rez in all the papers together are 300 marks. <br> 2. Lowest percentage of marks obtained by Rez in any of the papers of this examination is $30 \%$. |
| Que:34 | The question given below is followed by two statements, A and B. Mark the answer using the following instructions: |

\(\left.$$
\begin{array}{|l|l|}\hline & \begin{array}{l}\text { Mark (a) if the question can be answered by using FIRST statement alone } \\
\text { Mark (b) if the question can be answered by using SECOND statement alone } \\
\text { Mark (c) if the question can be answered by using either statement alone. } \\
\text { Mark (d) if the question can be answered by using both the statements together, but cannot be } \\
\text { answered by using either statement alone. } \\
\text { Mark (e) if the question cannot be answered even by using both the statements together. } \\
\text { A triangle is circumscribed by a circle. Is this triangle a right-angled triangle? } \\
\text { 1. Triangle is isosceles triangle. } \\
\text { 2. One side of the triangle is the largest possible chord of the circle. }\end{array} \\
\hline \text { Que:35 } & \begin{array}{l}\text { The question given below is followed by two statements, A and B. Mark the answer using the } \\
\text { following instructions: } \\
\text { Mark (a) if the question can be answered by using FIRST statement alone } \\
\text { Mark (b) if the question can be answered by using SECOND statement alone } \\
\text { Mark (c) if the question can be answered by using either statement alone. } \\
\text { Mark (d) if the question can be answered by using both the statements together, but cannot be } \\
\text { answered by using either statement alone. } \\
\text { Mark (e) if the question cannot be answered even by using both the statements together. } \\
\text { There are five members - A, B, C, D and E in a family. How many of them are male? } \\
\text { 1. E has two sisters - B and D } \\
\text { 2. A is the father of E and C and C is the only son of E }\end{array} \\
\hline \text { Que:36 } & \begin{array}{l}\text { The question given below is followed by two statements, A and B. Mark the answer using the } \\
\text { following instructions: } \\
\text { Mark (a) if the question can be answered by using FIRST statement alone } \\
\text { Mark (b) if the question can be answered by using SECOND statement alone } \\
\text { Mark (c) if the question can be answered by using either statement alone. } \\
\text { Mark (d) if the question can be answered by using both the statements together, but cannot be } \\
\text { answered by using either statement alone. } \\
\text { Mark (e) if the question cannot be answered even by using both the statements together. } \\
\text { A bus is running with a uniform speed from A to B. It met with an accident somewhere } \\
\text { enroute. What is the speed of this bus? } \\
\text { 1. Due to this accident, speed of bus got reduced by 22\%. And due to this one bus reached B } \\
\text { 40 minutes late. }\end{array}
$$ \\
\hline 2. Had the accident occurred 5 kms ahead of the point where the accident occurred, it would \\

have reached B only 20 minutes late.\end{array}\right\}\)| The question given below is followed by two statements, A and B. Mark the answer using the |
| :--- |
| following instructions: |
| Mark (a) if the question can be answered by using FIRST statement alone. |
| Mark (b) if the question can be answered by using SECOND statement alone. |
| Mark (c) if the question can be answered by using either statement alone. |


|  | Mark (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. <br> Mark (e) if the question cannot be answered even by using both the statements together. <br> If the ratio of boys to girls attending school in 2000 was $1 / 3$, what was the ratio of boys to girls attending school in 2001? <br> 1. 100 more boys were attending school in 2001 than in 2000. <br> 2. 150 more girls were attending school in 2001 than in 2000 . |
| :---: | :---: |
| Que:38 | The question given below is followed by two statements, A and B. Mark the answer using the following instructions: <br> Mark (a) if the question can be answered by using FIRST statement alone. <br> Mark (b) if the question can be answered by using SECOND statement alone. <br> Mark (c) if the question can be answered by using either statement alone. <br> Mark (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. <br> Mark (e) if the question cannot be answered even by using both the statements together. <br> Is $x>y$ ? <br> 1. $\left(x^{4}-y^{4}\right) /\left(x^{3}+y^{3}\right)>0$. <br> 2. $\left(x^{3}-y^{3}\right) /\left(x^{4}-y^{4}\right)>0$. |
| Que:39 | The question given below is followed by two statements, A and B. Mark the answer using the following instructions: <br> Mark (a) if the question can be answered by using FIRST statement alone. <br> Mark (b) if the question can be answered by using SECOND statement alone. <br> Mark (c) if the question can be answered by using either statement alone. <br> Mark (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. <br> Mark (e) if the question cannot be answered even by using both the statements together. <br> If $a$ and $b$ are integers, is a divisible by 11 ? <br> 1. ab is divisible by 110 <br> 2. b is divisible by 2 . |
| Que:40 | The question given below is followed by two statements, A and B. Mark the answer using the following instructions: <br> Mark (a) if the question can be answered by using FIRST statement alone <br> Mark (b) if the question can be answered by using SECOND statement alone <br> Mark (c) if the question can be answered by using either statement alone. <br> Mark (d) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone. <br> Mark (e) if the question cannot be answered even by using both the statements together. |


|  | Six people - A through F- sit around a circular table, not necessarily in the same order. $B$ and $E$ sit opposite each other. Does $C$ sit opposite D? <br> 1. If $C$ and $E$ interchange their positions, then $E$ will be to the immediate left of $B$. <br> 2. If A and B interchange their positions, then $B$ will be to the immediate left of $E$. |  |
| :---: | :---: | :---: |
| Que:41 | Which of the following is true? |  |
|  | (A) | $51^{49}>50^{50}$ |
|  | (B) | $205^{39}<200^{40}$ |
|  | (C) | $9^{9}<10^{8}$ |
|  | (D) | $26^{24}>25^{25}$ |
|  | (E) | None of the above |
| Que:42 | If $x$ and $y$ are positive real numbers $3 x+4 y=20$, then maximum value of $x^{3} y^{2}$ is |  |
|  | (A) | 326 |
|  | (B) | 280 |
|  | (C) | 512 |
|  | (D) | 256 |
|  | (E) | 64 |
| Que:43 | Shania sold some umbrellas, raincoats and caps on a rainy day at the respective price of $100 \$ \mathbf{\$ 1 2 0}$ and $\mathbf{\$ 2 5}$. If she makes a total collection of $\mathbf{\$ 5 6 0}$, then how many pieces did she sell totally? |  |
|  | (A) | 4 |
|  | (B) | 5 |
|  | (C) | 6 |
|  | (D) | 7 |
|  | (E) | 8 |
| Que:44 | The average weight of a certain group of ' $n$ ' men is 75 Kg . Three men whose weights are 80 $\mathrm{Kg}, 76 \mathrm{Kg}$, and 74 Kg join the group and one man whose weight is between 90 Kg and 100 Kg leaves the group. The average of the group has now come down by $\mathbf{2 K g}$. If the number of men initially is a perfect square, then the weight of the man who left is |  |
|  | (A) | 98 Kg |
|  | (B) | 96 Kg |
|  | (C) | 100 Kg |
|  | (D) | 92 Kg |
|  | (E) | 95 Kg |
| Que:45 | Kingston told to Toshiba, " 12 times the date of my birth added to 31 times the month of my birth is $\mathbf{3 7 6 "}$. On which date was Kingston born? |  |
|  | (A) | $24^{\text {th }}$ |
|  | (B) | $23^{\text {rd }}$ |
|  | (C) | $22^{\text {nd }}$ |


|  | (D) | $21^{s t}$ |
| :---: | :---: | :---: |
|  | (E) | $25^{\text {th }}$ |
| Que:46 | If the sum of the cubes of the first $\mathbf{p}$ natural numbers is 1296 , then the arithmetic mean of the cubes of those numbers is |  |
|  | (A) | 160 |
|  | (B) | 158 |
|  | (C) | 170 |
|  | (D) | 162 |
|  | (E) | 196 |
| Que:47 | The squares of the sum of the lengths of the diagonals of a rhombus exceed the square of the difference of the lengths of the diagonals by $4800 \mathrm{~cm}^{2}$. Find the area of the rhombus in $\mathbf{~ c m}^{2}$. |  |
|  | (A) | 2400 |
|  | (B) | 600 |
|  | (C) | 1200 |
|  | (D) | 2200 |
|  | (E) | 3600 |
| Que:48 | If $\mathrm{a}, \mathrm{b}$ and c are three distinct positive real numbers then $\frac{a^{\wedge} 2(b+c)+b^{\wedge} 2(c+a)+c^{\wedge} 2(a+b)}{a b c}$ is always |  |
|  | (A) | Greater than 4 |
|  | (B) | Greater than 5 |
|  | (C) | Greater than 6 |
|  | (D) | Greater than 3 |
|  | (E) | None of the above |
| Que:49 | In a purse, there are 30 coins, twenty one-rupee and remaining 50 -paise coins. Eleven coins are picked simultaneously at random and placed in a box. If a coin is now picked from the box, find the probability of it being a rupee coin. |  |
|  | (A) | 4/7 |
|  | (B) | 1/2 |
|  | (C) | 2/3 |
|  | (D) | 5/6 |
|  | (E) | 6/13 |
| Que:50 | Shreya purchased some tables and chairs for $\$ 126$. Had she interchanged the number of tables and chairs, it wouldn't have cost her more than \$63. If each table and chair cost her $\$ 6$ and 75 cents respectively, then the total number of tables and chairs she actually purchased can be |  |
|  | (A) | 20 |
|  | (B) | 28 |
|  | (C) | 24 |


|  | (D) | 26 |
| :---: | :---: | :---: |
|  | (E) | 29 |
| Que:51 | What is the maximum number of trials required to open a lock with a 3-digit numerical password in which the last digit is known and the sum of the first two digits is less than or equal to the last digit? |  |
|  | (A) | 36 |
|  | (B) | 40 |
|  | (C) | 45 |
|  | (D) | 55 |
|  | (E) | 65 |
| Que:52 | A, B, C, D and E play the following game. Each person picks one card from the cards numbered 1 through 10. The person who picks the greatest numbered card loses and is out of the game. Now the remaining four return their cards to the pack and draw again, and again the person with the greatest numbered card loses. This process is repeated till only one person is left in the game that is declared the winner. What is the probability that $\mathbf{A}$ is the winner? |  |
|  | (A) | 3/14 |
|  | (B) | 4/17 |
|  | (C) | 1/5 |
|  | (D) | 5/24 |
|  | (E) | 1/25 |
| Que:53 | Find last two digits of $7^{4034}$ |  |
|  | (A) | 29 |
|  | (B) | 39 |
|  | (C) | 49 |
|  | (D) | 9 |
|  | (E) | 69 |
| Que:54 | The number 81A84B6C, where each of the letters $A, B, C$ represents a distinct digit, is divisible by each of $5,8,9$. Find the value of $A+B$ if $B$ is not a prime |  |
|  | (A) | 9 |
|  | (B) | 8 |
|  | (C) | 10 |
|  | (D) | 7 |
|  | (E) | 6 |
| Que:55 | If $\mathrm{N}=4831 * 4833 * 4835$ is divided by 24 , the remainder will be |  |
|  | (A) | 9 |
|  | (B) | 23 |
|  | (C) | 21 |


|  | (D) | 17 |
| :---: | :---: | :---: |
|  | (E) | 11 |
| Que:56 | The nth term of the series 6, 13, 20,..., is 636. Find $n$. |  |
|  | (A) | 90 |
|  | (B) | 91 |
|  | (C) | 100 |
|  | (D) | 101 |
|  | (E) | 110 |
| Que:57 | The sum of three numbers in arithmetic progression is 36 . The sum of the squares of the three numbers is $\mathbf{4 6 4}$. Find the smallest number. |  |
|  | (A) | 8 |
|  | (B) | 14 |
|  | (C) | 12 |
|  | (D) | 10 |
|  | (E) | 16 |
| Que:58 | A car rental agency has the following terms. If a car is rented for 8 hours or less the charge is $\mathbf{\$ 1 0 0}$ per hour or $\$ 8$ per $\mathbf{k m}$ whichever is more. On the other hand, if the car is rented for more than 8 hours, the charge is $\$ 80$ per hour or $\$ 6$ per $\mathbf{k m}$ whichever is more. Company XYZ rented a car from the agency, and used it for 120 km and paid $\$ 800$. For how many hours did the company rent the car? |  |
|  | (A) | 5 |
|  | (B) | 12 |
|  | (C) | 6 |
|  | (D) | 8 |
|  | (E) | 10 |
| Que:59 | Let $f(x)=a_{12} x^{12}+a_{10} x^{10}+a_{8} x^{8}+\ldots+a_{2} x^{2}+a_{0}$ <br> The coefficients $a_{12}, a_{10}, a_{8}, a_{0}$ are real. There are three sign changes of $f(x)$ and $f(x)=0$ has four non-real roots. Which of the following is true? |  |
|  | (A) | $\mathrm{a}_{10}=0$ |
|  | (B) | $\mathrm{a}_{10}>0$ |
|  | (C) | $\mathrm{a}_{10}<0$ |
|  | (D) | $\mathrm{a}_{0}=0$ |
|  | (E) | None of these |
| Que:60 | $\mathrm{M}, \mathrm{N}$ and O walk around a circular track in 20 minutes 24 seconds, 45 minutes 20 seconds and 40 minutes 48 seconds respectively. If all of them start simultaneously from the same point, after how much time will they meet again at the starting point for the first time? |  |
|  | (A) | 6 hours 36 minutes |
|  | (B) | 6 hours 30 minutes |


|  | (C) | 6 hours 24 minutes |
| :---: | :---: | :---: |
|  | (D) | 6 hours 48 minutes |
|  | (E) | 6 hours 18 minutes |
| Que:61 | Clark says to Bret. "I am thrice as old as you are when I was as old as you are". If the sum of their present ages is $\mathbf{8 0}$ years, then how many years ago was Clark twice as old as Bret? |  |
|  | (A) | 12 |
|  | (B) | 10 |
|  | (C) | 18 |
|  | (D) | 16 |
|  | (E) | Cannot be determined |
| Que:62 | If $p=\sqrt{5}-2$, then find the value of $p^{4}+16 p^{2}+8 p^{3}+4$ |  |
|  | (A) | 3 |
|  | (B) | 0 |
|  | (C) | 1 |
|  | (D) | 5 |
|  | (E) | 7 |
| $\begin{aligned} & \text { For:63 to } \\ & 65 \end{aligned}$ | The Following graph shows the sales of laptops and desktops at a certain store during the period April 2011 to March 2012. |  |
| Que:63 | What is the maximum percentage decrease in the sales volume of desktops in any month when compared to the previous month? |  |
|  | (A) | 25\% |
|  | (B) | 40\% |
|  | (C) | 50\% |
|  | (D) | 60\% |
|  | (E) | 75\% |
| Que:64 | The ratio of the number of laptops sold to the number of the desktops sold in any month was at most |  |
|  | (A) | 2 |


|  | (B) | 3 |
| :---: | :---: | :---: |
|  | (C) | 3.5 |
|  | (D) | 2.5 |
|  | (E) | 4.5 |
| Que:65 | In how many months, from May'11 to Mar'12, was the percentage increase in the number of laptops sold at least $30 \%$ when compared to the previous month? |  |
|  | (A) | 5 |
|  | (B) | 3 |
|  | (C) | 4 |
|  | (D) | 2 |
|  | (E) | 1 |
| Que: 66 | On the morning of friendship day, a teacher took $n$ friendship bands to her class, intending to distribute these bands among her student. She calculated that these would be exactly sufficient, if every student of her class gave one band to every other student in the class. However, by noon she observed that exactly two students had not turned up and hence exactly n-50 bands were used up. If in afternoon, exactly one of these two students turned up, then find the number of bands that remained unused. |  |
|  | (A) | 26 |
|  | (B) | 28 |
|  | (C) | 13 |
|  | (D) | 14 |
|  | (E) | None of these |
| Que: 67 | Find the sum of $S$ if $S=-[4(1+3+5+70]+[5(2+4+6+8)]-[6(3+5+7+9)]+[7(4+6+8+10)] \ldots$ upto 82 terms. |  |
|  | (A) | 14596 |
|  | (B) | 14256 |
|  | (C) | 13588 |
|  | (D) | 13920 |
|  | (E) | None of these |
| Que: 68 | $P, Q, R, S$ and $T$ are five prime numbers, where $P<Q<R<S<T$. It is also given that $P+Q$ $+R+S+T=482$. What is the value of P5? |  |
|  | (A) | 243 |
|  | (B) | 32 |
|  | (C) | 16807 |
|  | (D) | 16 |
|  | (E) | More than one value |
| $\begin{aligned} & \text { For Q } 69 \\ & \& 70 \end{aligned}$ | Sam intended to travel a certain distance at a certain uniform speed. But after one hour, he increased his speed by $25 \%$. As a result, in the remaining part of the time that he originally |  |


|  | planned for the journey, he could now cover as much distance as he initially thought he <br> would be able to cover. |  |
| :--- | :--- | :--- |
| Que: 69 | What is the total time taken for the journey? |  |
|  | (A) | 5 hours |
|  | (B) | 6 hours |
|  | (C) | 3 hours |
|  | (D) | 4 hours |
|  | (E) | None of these |
| Que: 70 | After Sam increased his speed, if he decided to terminate his journey after covering the <br> distance he initially intended to cover and not cover the extra distance as given in the data, <br> what is the total time taken for the journey? |  |
|  | (A) | 4 hours 12 minutes |
|  | (B) | 3 hours 36 minutes |
|  | (C) | 5 hours 24 minutes |
|  | (D) | 4 hours 24 minutes |
|  | (E) | None of these |

Scroll down for answers...

| ANSWER KEY |  |  |  |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| Que:31 | B | Que:51 | D |
| Que:32 | D | Que:52 | C |
| Que:33 | B | Que:53 | C |
| Que:34 | B | Que:54 | A |
| Que:35 | E | Que:55 | C |
| Que:36 | E | Que:56 | B |
| Que:37 | E | Que:57 | A |
| Que:38 | B | Que:58 | E |
| Que:39 | E | Que:59 | D |
| Que:40 | D | Que:60 | D |
| Que:41 | B | Que:61 | D |
| Que:42 | D | Que:62 | D |
| Que:43 | E | Que:63 | D |
| Que:44 | D | Que:64 | C |
| Que:45 | D | Que:65 | B |
| Que:46 | D | Que:66 | A |
| Que:47 | B | Que:67 | A |
| Que:48 | C | Que:68 | B |
| Que:49 | C | Que:69 | A |
| Que:50 | B | Que:70 | A |

