

## Mathematics General Science Test Medium Mode

| Sr | Questions  | Answers Choice  |
|----|--|---|
| 1  | The fifth term of the sequence $a_n = 2n + 3$ is _____   | A. 13<br>B. -13<br>C. 8<br>D. 3   |
| 2  | The line through the centre and perpendicular to the transverse axis is called the   | A. Major axis<br>B. Minor axis<br>C. Focal axis<br>D. Conjugate axis  |
| 3  | Question Image <input style="width: 100%; height: 20px;" type="text"/>   | A. 0<br>B. 1<br>D. -1   |
| 4  | A square matrix $A = [a_{ij}]$ is lower triangular matrix when:  | A. $a_{ij} = 0$ for all $i < j$<br>B. $b_{ij} = 0$<br>C. $c_{ij} = 0$<br>D. $d_{ij} = 0$                                  |
| 5  | 202.04 is an example of  | A. Recurring decimals<br>B. Non-recurring decimals<br>C. Terminating decimals<br>D. None of above                         |
| 6  | Question Image <input style="width: 100%; height: 20px;" type="text"/>   | A. 7<br>B. 5<br>C. 6<br>D. None of these  |
| 7  | Question Image <input style="width: 100%; height: 20px;" type="text"/>   | A. 1<br>B. 2<br>C. 3  |
| 8  | $\cos^{-1} \frac{12}{13} =$  | A. $\tan^{-1} \frac{3}{5}$<br>B. $\cot^{-1} \frac{13}{12}$<br>C. $\sec^{-1} \frac{13}{12}$<br>D. $\sin^{-1} \frac{5}{13}$ |
| 9  | When a selection of object is made without paying regard to the order of selection, it is called   | A. Sequence<br>B. Series<br>C. Combination<br>D. Permutation  |
| 10 | Derivative of $x^3$ w.r.t $x$ is   | A. 0<br>B. 1<br>C. $3x^2$<br>D. $x^3$   |
| 11 | Question Image <input style="width: 100%; height: 20px;" type="text"/>   |   |
| 12 | The point R dividing internally the line joining the points $P(x_1, y_1)$ and $Q(x_2, y_2)$ in the ratio $K_1 : K_2$ has the coordinates |   |
| 13 | If $a_1, r$ and $a_n$ are the first term, common ratio and the $n$ th term respectively of a G. P. then $a_n =$                          | A. $a_1 r^{n-1}$<br>B. $a_1 r^{n-1}$<br>C. $a_1 r^{n+1}$<br>D. $a_1 r$  |
| 14 | Which of the following is not a quadrantal angle   | A. $90^\circ$<br>B. $100^\circ$<br>C. $180^\circ$<br>D. $270^\circ$   |
| 15 | The set of all positive even integers is   | A. Not a group<br>B. A group w.r.t. subtraction<br>C. A group w.r.t. division<br>D. A group w.r.t. multiplication         |
| 16 | Question Image <input style="width: 100%; height: 20px;" type="text"/>   |   |
| 17 | If the focus lies on the $y$ -axis with coordinates $f(0, a)$ and directrix of the parabola is $y = -a$ , the equation of parabola is:   | A. $x^2 = -4ax$<br>B. $x^2 = 4ay$<br>C. $x^2 = -4ay$<br>D. $x^2 = 4ax$  |

18 The exact degree value of the function  $\sin^{-1}(-\sqrt{3}/2)$  is

- A.  $70^\circ$
- B.  $50^\circ$
- C.  $90^\circ$
- D.  $60^\circ$

19 Question Image

20 Question Image