

## Mathematics General Science Test Medium Mode

| Sr | Questions  | Answers Choice  |
|----|--|---|
| 1  | Question Image   |   |
| 2  | The magnitude of vector $a=i-3j+5k$ is:  | A. 3<br>B. $\sqrt{35}$<br>C. $\sqrt{17}$<br>D. $\sqrt{35}$                                      |
| 3  | Question Image   | A. 15<br>B. $15i$<br>C. $-15i$<br>D. -15  |
| 4  | If one end of the diameter of the circle $2x^2 + 2y^2 - 8x - 4y = 2 = 0$ is (2,3), the other end is: | A. (2,1)<br>B. (-2,1)<br>C. (2,-1)<br>D. (1,-1)   |
| 5  | Question Image   | A. $(a+b)c = a \cdot c + bc$<br>B. $a+b = b+a$<br>C. $(a+b)+c = a+(b+c)$<br>D. $a(b+c) = ab+ac$ |
| 6  | The sides of a right angled triangle are in A.P The ratio of sides is                                | A. 1:2:3<br>B. 3:4:5<br>C. 2:3:4<br>D. 5:8:3  |
| 7  | Question Image   |   |
| 8  | $3x + 4 = 0$ is  | A. not inequality<br>B. equation<br>C. identity<br>D. inequality                                |
| 9  | Question Image   |   |
| 10 | Question Image   | D. none of these  |
| 11 | The mid point of the line segment joining the points (3,-1) and (-3,1) is                            | A. (3,-1)<br>B. (0,0)<br>C. (2,2)<br>D. (4,4)   |
| 12 | Question Image   | A. Hermitian matrix<br>B. Skew-hermitian matrix<br>C. Symmetric matrix<br>D. Identity matrix    |
| 13 | The line $y = 4x + c$ touches the hyperbola $x^2 - y^2 = 1$ if and only if                           | A. $c = \pm\sqrt{2}$<br>B. $c = 0$<br>C. $c = \pm\sqrt{17}$<br>D. $c = \pm\sqrt{15}$            |
| 14 | If $z_1 = 2 + 6i$ and $z_2 = 3 + 7i$ then which expression defines the product of $z_1$ and $z_2$    | A. $36 + (-32)i$<br>B. $-36 + 32i$<br>C. $6 + (-11)i$<br>D. $0, +(-12)i$                        |
| 15 | Question Image   |   |
| 16 | The value of $\sin 28^\circ \cos 17^\circ + \cos 28^\circ \sin 17^\circ$ is                          |   |
| 17 | The parabola $y^2 = x$ is symmetric about  | A. x-axis<br>B. y-axis<br>C. Both x and y-axis<br>D. The line $y = x$                           |
| 18 | A matrix with a single row is called a   | A. Column matrix<br>B. Row matrix<br>C. Null matrix<br>D. Identity matrix                       |

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Question Image

- B. 0  
C. -1  
D. 2

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By expressing  $\sin 125^\circ$  in terms of trigonometrical ratios, answer will be

- A.  $\sin 65^\circ = 0.9128$   
B.  $\sin 55^\circ = 0.8192$   
C.  $\sin 70^\circ = 0.5384$   
D.  $\sin 72^\circ = 0.1982$