

## Mathematics General Science Test Medium Mode

| Sr | Questions  | Answers Choice  |
|----|--|---|
| 1  | Question Image   | A. Right angled<br>B. Obtuse angled<br>C. Isosceles<br>D. Equilateral   |
| 2  | $1^0 = \underline{\hspace{2cm}}$   |   |
| 3  | The only function which is both even and odd is  | A. $f(x) = \alpha$<br>B. $f(x) = x$<br>C. $f(x) = 0$<br>D. Both A & B   |
| 4  | Question Image   |   |
| 5  | Question Image   |   |
| 6  | A square matrix $A = [a_{ij}]$ is upper triangular when  | A. $c_{ij} = 0$<br>B. $b_{ij} = 0$<br>C. $a_{ij} = 0$ for all $i > j$<br>D. $d_{ij} = 0$  |
| 7  | Question Image   |   |
| 8  | The range of inequality $x + 2 > 4$ is   | A. (-1, 2)<br>B. (-2, 2)<br>C. (1, <span style="color: rgb(34, 34, 34); font-family: 'Times New Roman'; font-size: 24px; text-align: center; background-color: rgb(255, 255, 248);">∞</span> )<br>D. None |
| 9  | The value of x and y when $(x + iy)^2 = 5 - 4i$  | A. $x = 2, y = -1$<br>B. $x = -2, y = 1$<br>C. $x = 2, y = -i$<br>D. $x = 2, y = 2$   |
| 10 | Question Image   |   |
| 11 | The law of sines can be used to solve  | A. Right angle triangle<br>B. Isosceles triangle<br>C. oblique triangle<br>D. hexagon   |
| 12 | An experiment yields 3 mutually exclusive and exhaustive events A, B, C, if $P(A) = 2$ and $P(B) = 3$ . then $P(C) =$  | A. $1/11$<br>B. $2/11$<br>C. $3/11$<br>D. $6/11$  |
| 13 | The vertex of the parabola $(x \sin a - y \cos a)^2 = 4a(x \cos a + y \sin a)$ lies at                                 | A. $(\cos a, \sin a)$<br>B. $(a, 0)$<br>C. $(\cos a, \sin a)$<br>D. $(0, 0)$  |
| 14 | Riaz, Saba, Maria, Shehzad are to give speeches in a class. The teacher can arrange the order of their presentation in | A. 4 ways<br>B. 12 ways<br>C. 256 ways<br>D. 24 ways  |
| 15 | Question Image   |   |
| 16 | $x = \underline{\hspace{2cm}}$ is in the solution of $2x + 3 < 0$  | A. 0<br>B. 2<br>C. -1<br>D. -2  |
| 17 | Question Image   | A. 5<br>B. 10<br>C. 20<br>D. 30   |
| 18 | Question Image   |   |

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The sum of an infinite geometric series exist if

- A.  $|r| < 1$
- B.  $|r| > 1$
- C.  $r = 1$
- D.  $r = -1$

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The projections of a line segment on x, y, z axes are 12, 4, 3. The length and the direction cosines of the line segment are

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