## Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | The maximum value of $\sin\theta\cos\theta$ is | A. 1<br>B. 1/2<br>C. 1/4<br>D. 1/6 |
| 2 | (a+bi) - (c+di)= | A. (a+b) = (c+d)<br>B. (a+c) + i(b+d)<br>C. (a - c) + (c- d)i<br>D. (a - c)+ (b - d)i |
| 3 | Question Image | A. Zero matrix<br>B. Diagonal matrix<br>C. Column matrix<br>D. Scalar matrix |
| 4 | Question Image | |
| 5 | Question Image | |
| 6 | Question Image | A. are real no<br>B. both are not real<br>C. are imaginary no<br>D. both are imaginary |
| 7 | Domain of cosh x is | A. R<br>B. R -{0}<br>C. $[1,\infty)$<br>D. $[0,\infty)$ |
| 8 | If a,$\beta$ are the roots of the equation $x2 - 8x + p = 0$ and $a2 + \beta2= 40$, then value of p is | A. 8<br>B. 12<br>C. 10<br>D. 14 |
| 9 | Range of 3 sin x is _____ | A. [ -3, 3]<br>B. [-1, 1]<br>C. R<br>D. None of these |
| 10 | Cosec 60° = _____ | |
| 11 | (1,0) is in the solution of the inequality | A. 3x + 2y &gt; 8<br>B. 2x - 3y &lt; 4<br>C. 2x + 3y &gt; 3<br>D. x - 2y &lt; -5 |
| 12 | If $Z_1= 1 + i$, $Z_2= 2+3i$, then $|Z_1- Z_2| = ?$ | |
| 13 | If c = 2i+j+k and d= -1 + 4j +2k, then [c-d]= | A. $\sqrt{7}$<br>B. $\sqrt{41}$<br>C. $\sqrt{19}$<br>D. $\sqrt{(2\&7)}$ |
| 14 | The general term of the A.P. is | A. $a_1$+ (n - 1) d<br>B. n + ($a_1$- 1) d<br>C. d + (n - 1) $a_1$<br>D. None of these |
| 15 | Question Image | |
| 16 | To each element of a group there corresponds ............. inverse element | A. Two<br>B. One<br>C. No<br>D. Three |
| 17 | Question Image | A. Reflexive property<br>B. Symmetric property<br>C. Transitive property<br>D. Additive property |
| 18 | Question Image | A. k3<br>B. 0<br>C. 3k |

D. k6

| 19 | The roots of the equation $x^2 + 6x - 7 = 0$, are | A. 1<br>B. 2<br>C. 1 and -7<br>D. -7 |
| 20 | If $ab > 0$ and $a < 0$, which of the following is negative? | A. b<br>B. -b<br>C. -a<br>D. $(a - b)^2$ |