

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The expansion of $(1 + 2x)^{-2}$ is valid if	A. $ x  < 1/2$ B. $ x  < 1$ C. $ x  < 2$ D. $ x  < 3$
2	Question Image	
3	If $ a \times b ^2 + (a, b)^2 = \_\_\_\_\_\_$	A. $ a ^2 +  b ^2$ B. $ a ^2 -  b ^2$ C. $ a ^2 b ^2$ D. None
4	If the sum of even coefficients in the expansion of $(1+x)^n$ is 128 then	A. $n=7$ B. $n=9$ C. $n=8$ D. None
5	If $n$ is a negative integer $n!$ is	A. 1 B. 0 C. Unique D. Not defined
6	Question Image	A. 11 B. 61 D. 1
7	Each complex cube root of unity is square of	A. itself B. 1 C. -1 D. the other
8	If $f(x) = x^3$ then $f(-2)$ is	A. -2 B. -4 C. -8 D. 8
9	The equation of the sphere thro' the origin and making intercepts $a, b, c$ on co-ordinate axes is	A. $x^2 + y^2 + z^2 + ax + by + cz = 0$ B. $x^2 + y^2 + z^2 - 2ax - 2by - 2cz = 0$ C. $x^2 + y^2 + z^2 + a + b + c$ D. $x^2 + y^2 + z^2 + ax - by - cz = 0$
10	An expression involving any of the symbols $<, >, \leq$ or $\geq$ is called	A. equation B. inequality C. linear equation D. identity
11	If $ ai + (a+1)j + 2k  = 3$ then value of $a$ is	A. 1, 2 B. -1, -2 C. 1, -2 D. -1, 2
12	If $\theta$ be angle between $u, v$ and $u, v$ determine the sides of a triangle then the third side opposite to angle $\theta$ has length	A. $ u+v $ B. $ u + v $ C. $ u-v $ D. $ u - v $
13	Question Image	
14	The equation of motion of a stone thrown vertically up wards is $s = ut - 4.9t^2$ the maximum height attained by it =	
15	The distance of the point $(-2, -3)$ from y-axis is	A. 2 B. -2 C. 3 D. -3
16	The approximate percentage increase in the volume of a cube if the length of its each edge changes from 5 to 5.02 is	A. 1.2% B. 1.5% C. 0.16% D. 100.16%

17	Question Image	
18	$(-28, 12)$ divides the join of $A(-6, 3)$ and $B(5, -2)$ in ratio	A. 1:2 B. 3:2 C. 2:3 D. 2:1
19	Question Image	A. Only one real solution B. Exactly three real solution C. Exactly one rational solution D. Non-real roots
20	Question Image	A. Trichotomy property B. Additive property of inequality C. Transitive property D. Multiplicative property