

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Write the first four terms of the sequence if $a_n = (-1)^n n^2$	A. -1, 4, -9, 16 B. 1, -4, 9, 16 C. 1, 4, 9, 16 D. None of these
2	If $f(x) = x^3 - 2x^2 + 4x - 1$ then $f(2)$ is	A. 7 B. -16 C. 16 D. -9
3	If $f: A \rightarrow B$ is an injective function and second elements of no two of its ordered pairs are equal, then $f$ is called	A. 1-1 and onto B. Bijective C. 1-1 and into D. None of these
4	The no of term is the expansion of $(a+x)^{n-1}$ is	A. $n+1$ B. $n-1$ C. $n$ D. $n-2$
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Commutative law of addition B. Associative law of addition C. Additive identity D. Additive inverse
6	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
7	The coordinates of the point that divides the join of $A(-6,3)$ and $B(5, -2)$ in the ratio 2:3 internally	
8	A number $A$ is called the arithmetic mean between $a$ and $b$ if $a, A, b$ is _____	A. Arithmetic sequence B. Geometric sequence C. Harmonic sequence D. Arithmetic sequence
9	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Rational B. Irrational C. Non-real D. Zero
11	Let $S_n$ denote the sum of the first $n$ terms of an A.P. If $S_{2n} = 3 S_n$ : $S_n$ is equal to	A. 4 B. 6 C. 8 D. 10
12	Question Image <input style="width: 500px; height: 20px;" type="text"/>	D. none of these
13	The measure of the angle subtended at the centre of the circle by an arc, whose length is equal to the radius of the circle is	A. $1 <sup>0 </sup>$ B. $1'$ C. $1''$ D. 1 rad
14	0 is a symbol of	A. singleton set B. Empty set C. Equivalent set D. Infinite set
15	The longer side of a parallelogram is 10 cm and the shorter is 6 cm. If the longer diagonal makes an angles $30^\circ$ with the longer side, the length of the longer diagonal is	
16	The additive inverse of a matrix $A$ is	D. None of these
17	$\tan(\cot^{-1}x)$ is equal to	A. $\cot(\tan^{-1}x)$ B. $\tan x$ C. $\sec x$ D. None of these
18	When the angle between the ground and the sun is $30^\circ$ , flag pole casts a shadow of 40 m long. the height of the top of the flag is	A. 25m B. 23m C. 12m D. 29m

19

Question Image

20

8 . 7 . 6 . 5 in factorial form is