

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The line through the intersection of the lines $x + 2y + 3 = 0$ : $3x + 4y + 7 = 0$ and making equal intercepts on the axes is	A. $x + y + 1 = 0$ B. $x + y - 2 = 0$ C. $x + y + 2 = 0$ D. $2x + y + 2 = 0$
2	3, 6, 12,..... is	A. A.P B. G.P. C. H.P. D. None of these
3	The set of complex numbers forms a group under the binary operation of	A. Addition B. Multiplication C. Division D. Subtraction
4	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. 8 C. 4 D. 64
5	$\forall x \in (a,b), f(x)$ is increasing if	A. $f'(x) > 0$ B. $f'(x) < 0$ C. $f''(x) > 0$ D. $f''(x) = 0$
6	The point _____ is in the solution of the inequality $2x - 3y < 4$	A. (0, -2) B. (1, -3) C. (2, 2) D. (3, 0)
7	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. $\cot x + c$ B. $\tan x + c$ C. $-\cot x + c$ D. $-\tan x + c$
8	General solution of $1 + \cos x = 0$ is	
9	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. 0 B. 1
10	The intercepts of the plane $2x - 3y + 4z = 12$ on the co-ordinate axes are given by	A. 2, -3, 4 B. 6, -4, -3 C. 6, -4, 3 D. 3, -2, 1.5
11	Which of the following is a scalar.	A. force B. frequency C. weight D. acceleration
12	If $t$ is the parameter for one end of a focal chord of the parabola $y^2 = 4ax$ , then its length is	
13	$x = \sin^{-1} 3$ , then the value of $\sin x$ is	A. $\sqrt{3/2}$ B. 3 C. Not possible D. -1
14	If $S$ is a sample space and event set $E = S$ then $P(E)$ is	A. $> 0$ B. 1 C. $< 1$ D. 0
15	How many types of an equation	A. 1 B. 3 C. 2 D. None
16	The set of the first elements of the orders pairs forming a relation is called its	A. Relation in B B. Range C. Domain D. Relation In A
17	The 6th term of the sequence 7,9,12,16.....is	A. 27 B. 32 C. 20 D. 26

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- 18 Write the first four terms of the arithmetic sequence 5, 2, -1, ... is
- A. 3  
B. -4  
C. 7  
D. 1
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- 19 Optimize means \_\_\_\_\_ a quantity under certain constraints
- A. Minimize  
B. Maximize  
C. Maximize or minimize  
D. None of these
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- 20 Both the roots of the equation  $(x-b)(x-c) + (x-c)(x-a) + (x-a)(x-b) = 0$  are always
- A. Positive  
B. Negative  
C. Real  
D. None of these
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