


## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	$2\pi$ is the period of	A. $\sin$ B. $\tan$ C. $\cot$ D. all circular function
2	Question Image	A. $\sec 5x + c$ B. $-\sec 5x + c$
3	The set of real roots of the equation $\log_{(5x+4)}(2x+3)^3 - \log_{(2x+3)}(10x^2+23x+12) = 1$ is	A. $\{-1\}$ B. $\{-3/5\}$ C. Empty set D. $\{-1/3\}$
4	The parametric equation of a curve are $x = t^2$ , $y = t^3$ then	
5	Question Image	D. none of these
6	Question Image	A. 15 B. 9 C. 7 D. 8
7	$\{0\}$ is a	A. Empty set B. Singleton set C. Zero set D. Null Set
8	The number of terms in the expansion of $(a+b)^9$ is	A. 10 B. 11 C. 9 D. 12
9	A point of a solution regions where two of its boundary lines intersect, is called:	A. Vertex of the solution B. Feasible point C. Point of inequality D. Null point of the solution region
10	Root of the equation $3^{x-1} + 3^{1-x} =$ is	A. 2 B. 1 C. 0 D. -1
11	Question Image	A. 0 B. 1 D. undefined
12	Question Image	A. -1 B. 0 C. 1 D. undefined
13	If $e, e'$ be the eccentricities of two conics $S=0$ and $S'=0$ and if $e^2 + e'^2 = 3$ then both S and S' can be	A. Hyperbola B. Parabolas C. Ellipses D. None of these
14	The equation of the tangent at vertex to the parabola is $y^2 = -8(x-3)$	A. $y=0$ B. $x=3$ C. $x=1$ D. $x=5$
15	Question Image	A. 0 B. 3 C. 9 D. -3
16	A monoid $(G, *)$ is said to be group if	A. have identity element B. is commutative C. have inverse of each element D. None of these
17	The negation of a number	A. a relation B. a function C. unary operation D. . . .

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| 18 | If $p, q, r$ are in A.P., $a$ is G.M. between $p$ and $q$ and $b$ is G.M. between $q$ and $r$ , then $a^2, q^2, b^2$ are in | <p>A. A.P.<br/>B. G.P.<br/>C. H.P.<br/>D. None of these</p>                    |
| 19 | The point _____ is in the solution of the inequality $2x - 3y < 4$  | <p>A. (0, -2)<br/>B. (1, -3)<br/>C. (2, 2)<br/>D. (3, 0)</p>                   |
| 20 |   | <p>A. quadrant I<br/>B. quadrant II<br/>C. quadrant III<br/>D. quadrant IV</p> |