


## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	$n! > 2^n - 1$ is true when	A. $n \leq 3$ B. $n \leq 6$ C. $n \geq 4$ D. $n \leq 6$
2	Rational number is a number which can be written as a terminating decimal fraction or a	A. Non-terminating decimal fraction B. Non-recurring C. Recurring decimal fraction D. a, b and c
3	What is the number of elements of the power set of $\{0, 1\}$	A. 1 B. 2 C. 3 D. 4
4	If $0 = \{1, 3, 5, \dots\}$ , then $n(0) =$	A. Infinite B. Even numbers C. odd integers D. 99
5	Question Image	A. $p \leq r$ B. $p \geq r$ C. $p + r \leq 0$ D. $p - r \leq 0$
6	Question Image	
7	Question Image	
8	Geometric mean between a and b is	
9	Which is not a half plane	A. $ax + by \leq c$ B. $ax + by \geq c$ C. Both A and B D. None
10	In R the left cancellation property w.r.t addition is	
11	Area bounded between the curve $xy=2$ and the lines $x=1$ and $x=2$	A. $\ln 2$ square units B. $\ln \sqrt{2}$ square units C. $\ln 4$ square units D. Square units
12	If $z_1 = 2 + 6i$ and $z_2 = 3 + 7i$ , then which expression defines the product of $z_1$ and $z_2$ ?	A. $36 + (-32)i$ B. $-36 + 32i$ C. $6 + (-11)i$ D. $0, +(-12)i$
13	$\theta$ and $2k\pi + \theta$ are the _____ angles	A. Quadrantal angles B. Coterminal C. Allied D. None
14	If $z = (x, y)$ then z has no multiplicative inverse when	A. $x \neq 0, y = 0$ B. $x = 0, y = 0$ C. $x = 0, y \neq 0$ D. None of these
15	Each complex cube root of unity is square of	A. itself B. 1 C. -1 D. the other
16	If A(a,b) lies on $3x + 2y = 13$ and point B(b,a) lies on $x - y = 5$ then equation of AB is	A. $x - y = 5$ B. $x + y = 5$ C. $x + y = -5$ D. $5x + 5y = 21$
17	If $x < y$ , $2x = A$ , and $2y = B$ , then	A. $A = B$ B. $A \leq B$ C. $A \leq x$ D. $B \leq y$

A.  $(x-2)^2 + 6$

18 The standard form of the quadratic function  $f(x) = -x^2 + 4x + 2$ , is

- B.  $-(x-2)^2 + 6$
- C.  $(x-3)^2 + 5$
- D.  $(x+4)^2 - 7$

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- A.  $45^\circ$
- B.  $30^\circ$
- C.  $75^\circ$
- D.  $60^\circ$

20 If  $\sin A = \cos A$ ,  $0^\circ < A < 90^\circ$  then A is equal to

- A. 1
- B.  $1/2$
- C. 0
- D. None of these