

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The general term in the expansion of $(a+x)^n$ is	A. $(r-1)$ th term B. $(r+1)$ th term C. $r$ th term D. none
2	For graphing a linear inequality, solid line is drawn if the inequality involves the symbols:	A. $>$ or $<$ ; B. $\geq$ or $\leq$ C. $=$ or $\neq$ D. $=$ or $>$ ;
3	Question Image	
4	Question Image	
5	Question Image	
6	If the line $2x - y + k = 0$ is a diameter of the circle $x^2 + y^2 + 6x - 6y + 5 = 0$ then $k$ is equal to	A. 12 B. 9 C. 6 D. 3
7	Question Image	
8	If $x^3 + ax^2 - a^2x - a^3$ is divided by $x + a$ , then the remainder is	A. 0 B. $a^3$ C. $2a^3$ D. $-2a^3$
9	$x = 0$ is in the solution of the inequality	A. $x \geq 0$ B. $3x + 4 \leq 0$ C. $x + 3 \leq 0$ D. $x - 2 \leq 0$
10	The product of complex numbers $(a,b)$ and $(c,d)$ is	A. $(ac, bd)$ B. $(ac-bd, ad+bc)$ C. $(ab, cd)$ D. $(ac+bd, ad-bc)$
11	The set of even prime numbers is	A. $\{2, 4, 6, 8, 10\}$ B. $\{2, 4, 6, 8, 10, 12\}$ C. $\{1, 3, 5, 7, 9\}$ D. $\{2\}$
12	The contra positive of $p \rightarrow q$ is	A. $q \rightarrow p$ B. $\neg q \rightarrow \neg p$ C. $\neg p \rightarrow \neg q$ D. None of these
13	$a + x$ is _____	A. A trinomial B. A binomial C. A monomial D. None of these
14	Question Image	
15	$6! =$ _____	A. 360 B. 720 C. 6.5.4 D. None of these
16	The sum of the cubes of three consecutive natural number is divisible by	A. 9 B. 6 C. 5 D. 10
17	$5x^3 + 3x - 1$ is a _____	A. Polynomial of degree 3 B. Polynomial of degree 2 C. Polynomial of degree 1 D. Polynomial of degree 0
18	If $x, y, z$ are the $p$ th, $q$ th, $r$ th terms of an A.P. and also of G.P., then $x^p \cdot y^q \cdot z^r$ equals	A. $xyz$ B. 0 C. 1 D. ...

D. None of these

19 If  $x+y+z+\dots+2n = 2n+1-1 \forall n \in W$ , then cube root of  $xyz$  is equal to

- A. 1
- B. 4
- C. 2
- D. 8

20 The proposition  $S(k+1)$  is true when \_\_\_\_\_ is true  $\forall K \in N$

- A.  $S(n)$
- B.  $S(k)$
- C.  $S(1)$
- D.  $S(k-1)$