

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	The conic is a parabola if	A. $e < 1$ B. $e > 1$ C. $e = 1$ D. None of these
3	If $a = 2i + 2j$ , $b = 3i - j$ and $c = 4i + 5j$ , the $3b - a - 2c =$	A. $-i - 15j$ B. $i - 15j$ C. $i - 3j$ D. None of these
4	Question Image	
5	If $a, b, c$ are in A.P., then $3^a, 3^b, 3^c$ are in	A. A.P. B. G.P. C. H.P. D. None of these
6	The modulus of $12 - 5i$ is:	A. 7 B. 13 C. $\sqrt{7}$ D. 119
7	Question Image	
8	$\forall a, b, c \in \mathbb{R} \quad ac = bc \Rightarrow a = b, c \neq 0$ is a	A. Symmetric property B. Cancellation property w.r.t multiplication C. Reflexive property D. Transitive property
9	The degree of differential equation is the power of the	A. Lowest order derivative B. Highest order derivative C. Integral D. All are correct
10	Question Image	A. 2 and 9 B. 3 and 2 C. $2/3$ and 9 D. $3/2$ and 6
11	Question Image	A. 0 B. 1 C. 2 D. 3
12	Question Image	
13	Second derivative of $y = x^9 + 10x^2 + 2x - 1$ at $x = 0$ is	A. 10 B. 20 C. 12 D. 1
14	If $n$ is add the expansion $(a + x)^n$ has middle terms	A. 2 B. 3 C. 4 D. 5
15	Name the property used in $100 + 0 = 100$	A. Additive inverse B. Multiplicative inverse C. Additive identity D. Multiplicative identity
16	Question Image	
17	Question Image	A. $16/7$ B. $6/17$ C. $7/16$ D. None of these
18	If $a_1 = a_2 = 2$ , $a_n = a_{n-1} - 1$ ( $n > 2$ ), then $a_5$ is	A. 1 B. 0 C. -1

D. -2

19

Question Image

- A. Rational fraction
- B. Proper fraction
- C. Improper rational fraction
- D. None of these

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If  $A=B$ , then

- A.  $A \subset B$  and  $B \subset A$
- B.  $A \subseteq B$  and  $B \not\subseteq A$
- C.  $A \subseteq B$  and  $B \subseteq A$
- D. None of these