

## Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If $z_1 = (a,b)$ , $z_2=(c,d)$ , then $z_1 z_2 =$ -----	A. (ac,bd) B. (ac+bd, ad-bc) C. (ac-bd , ad+bc) D. (ac-bd , ad-bc)
2	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
3		
4		
5		A. $n < 8/5$ B. $n < 5/8$ C. $ n  < 8/5$ D. $ n  > 8/5$
6	If n is any positive integer then $2^n > 2(n + 1)$ is true for all	
7	No term of a geometric sequence can be	A. 0 B. 1 C. 2 D. 3
8	An A.P., a G.P. and a H.P. have the same first and last terms and the same odd numbers of terms, the middle terms of the three series are in	A. A.P. B. G.P. C. H.P. D. None of these
9	Let the sequence 1, 2, 2, 4, 4, 4, 4, 8, 8, 8, 8, 8, 8, ..... where n consecutive terms have the value n, then 1025th term is	A. $2^{>9}$ B. $2^{>10}$ C. $2^{>11}$ D. $2^{>8}$
10	There is no integer n for which 3n is	A. Even B. Prime C. Odd D. Real
11	The value of x which is unchanged by the mapping in the function defined by $f : x \mapsto x^2 + 5x - 5$ for $x > 0$ is	A. 1 B. 5 C. -5 D. -1
12		A. n(A) B. n(B) C. 0 D. 1
13	The expansion of $(1 + 2x)^{-2}$ is valid if	A. $ x  < 1/2$ B. $ x  < 1$ C. $ x  < 2$ D. $ x  < 3$
14	In one hour, the hour hand of a clock turns through	
15		A. 5 C. -5 D. none
16	The point which is closet to the focus of a parabola is:	A. vertex B. Chord C. Focus D. Directrix
17		
18	if $a_1 = 3$ , $d = 7$ and $a_n = 59$ , then the number of terms in A.P is	A. 7 B. 9 C. 11 D. 13

19  $\sin 3a = \underline{\hspace{2cm}}$ ;

- A.  $3\sin a - 4\sin 3a$
- B.  $4\sin a - 3\sin 3a$
- C.  $3\cos 3a - \cos a$
- D.  $4\cos 3a - 3\cos a$

20

Eight chairs are numbered 1 to 8. Two women and three men wish to occupy one chair each. First, the women choose the chairs from amongst the chairs marked 1 to 4 and then the men select the chairs from amongst the remaining. The number of possible arrangement is

- A.  ${}^6P_3 \times {}^4C_2$
- B.  ${}^4C_2 \times {}^4P_3$
- C.  ${}^4P_2 \times {}^6P_3$
- D. None of these