Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If a particle moves according to the law $s = t^3 - t^2$, then its velocity at time $t = 1.5$ is	A. 9/2 B. 15/4 C. 5 D. None
2	A = B iff	A. All elements of A also the elements of B B. A and B should be singleton C. A and B have the same number of elements D. If both have the same element
3	In a quadratic equation with leading co-efficient 1, a student reads the co-obtain the roots as -15 and -4. The correct roots are	A. 6, 10 B. -6, -10 C. 8, 8 D. -8, -8
4	The set of natural no. is closed under	A. multiplication B. subtraction C. difference D. division
5	an - an-1 will be common difference in an A.P if	A. $n = 1 \forall n \in N$ B. n>1 $\wedge n \in N$ C. $n \in Z$ D. None of the above
6	A fraction in which the degree of the numerator is greater than or equal to the degree of the denominator is called	A. A proper fraction B. An improper fraction C. An equation D. An identity
7	The period of cos(7x-5) is	A. π/7 B. 7π/2 C. π/2 D. 2π/7
8	A,G,H are in	A. A.P B. G.P C. H.P D. None of these
9	An equation which holds good for all values of variables is called	A. Equation B. Conditional equation C. Constant D. None
10	$Q \cup Q' =$	A. Q B. Q' C. N D. R
11	Question Image	
12	Trival solution of homogeneous linear equation is	A. (0, 0, 0) B. (1, 2, 3) C. (1, 3, 5) D. a, b and c
13	Question Image	A. Symmetric B. Skew-symmetric C. Hermitian D. Skew hermitian
14	Sine rule for a triangle states that	A. $a/\sin A = b/\sin B = c/\sin C$ B. $\sin A/a = \sin B/b = \sin C/c$ C. $a/\sin A + b/\sin B + c/\sin C$ D. 2a/sin A = 2b/sin B = 2c/sin

15	$\forall x, y, z \in R$ and z 0, then	A. x > y ⇒ xz > yz B. x<y ⇒ xz < yz C. x < y ⇒ xz > yz D. None of these
		0.95em; >2a/sin A = 2b/sin B = 2c/sin C

15	$\forall x, y, z \in R$ and z 0, then	A. x > y ⇒ xz > yz B. x<y ⇒ xz < yz C. x < y ⇒ xz > yz D. None of these
16	Which one is not defined $\forall n \in Z+$	A. -n! B. n! C. (-n)! D. n!+0!=n!+1
17	$x^2 + x - 5 = 0$ is	A. A polynomial B. An inequality C. An identity D. None
18	If $f(x) = x^2 - x$ then f(1) is	A. 0 B. 1 C. 2 D. 3
19	Question Image	
20	If $b^2 - 4ac = 0$ then the roots of the equation are	A. Real and distinct B. Real and equal C. Imaginary D. None of these