Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The set (Z, +) forms a group	A. Forms a group w.r.t. addition B. Non commutative group w.r.t. multiplication C. Forms a group w.r.t multiplication D. Doesn't form a group
2	Question Image	
3	An observer on the top of a cliff 200 m above the sea level, observes the angles of depression of two ships on opposite sides of the cliff to be 45° and 30°, respectively. The distance between the ships if the line joining them points to the base of cliff is	
4	To express a single rational fraction as a sum of two or more single rational fractions which are called	A. improper fractions B. Partial fractions C. mixed form D. Polynomials
5	The distance of the point (-2, -3) from the origin is	A. 2 B. -5 C. -3
6	Which of the following is a vector.	A. distance B. temperature C. energy D. acceleration
7	The square matrix A is skew-symmetric when At =	A. -B B. -C C. -A D. -D
8	Question Image	A. 56 B. 7 C. 8 D. 8/7
9	If $a^2 = b^2$ then	A. a = b B. a+b= 1 C. |a+b| =0 D. None
10	Question Image	
11	Question Image	
12	A function in which the second elements of the order pairs are distinct is called	A. Onto function B. One-one function C. Identity function D. Inverse function
13	The sum of n terms of a series is denoted by	A. d B. n C. S_n D. a_n
14	Parametric equation of circle : $x^2+y^2+r^2$, are	A. $r_1 = x \cos\Box \ r^2 = y \sin\Box$ B. $x = r \cos\Box \ y = r \sin\Box$ C. $x = r \sin\Box 1 \ y = r \sin\Box 2$ D. $x = r_1 \cos\Box \ y = r_2 \sin\Box$
15	In R, the multiplicative identity is	A. 0 B. 1 C. -1 D. None
16	The unit vector along y-axis is	D. none of these
17	Question Image	A. direction ratios B. direction cosines C. direction angles D. none of these

18	Period of Tangent function is	A. 0 B. $-\pi$ C. π D. 2π

19	The angle of elevation of the tops of two towers at the middle point of the line joining the foots of the tower are 60° and 30° respectively. The the ratio of the heghts of the tower is	A. 2 : 1 B. 3 : 1 C. 1 : 2 D. 1 : 3

20	The probability that a slip of number divisible by 4 is picked from the slips bearing numbers 1, 2, 3, ...10 is	A. 1/5 B. 1/4 C. 1/3 D. 1/2