

Mathematics ECAT Pre Engineering Online Test

Sr	Questions	Answers Choice
1	The multiplicative inverse of x^{-1} is	A. x B. $a-2$ C. 0 D. 1
2	Some of two real numbers is also a real number , this property is called:	A. Commutative property w.r.t addition B. Closure property w.r.t. addition C. Associative property w.r.t. addition D. Distributive property w.r.t addition
3	$Q \cup Q' =$	A. Q B. Q' C. N D. R
4	Such fraction which can not be written in the form of $\frac{p}{q}$ where p,q and $q \neq 0$, such fractions are called.	A. Fractional numbers B. Rational Numbers C. Even Numbers D. Whole Numbers
5	It is not possible to find the exact value of	A. π B. $\sqrt{9}$ C. $\sqrt[3]{27}$ D. $\sqrt{1}$
6	The square root of every incomplete square is an	A. Rational numbers B. Even numbers C. odd numbers D. Irrational numbers
7	The decimal fraction in which we have finite number of digits in its decimal part is called.	A. recurring decimal fraction B. Non terminating fraction C. Non recurring fraction D. terminating decimal fraction
8	$\sqrt{11}$ is	A. an irrational number B. Rational number C. odd number D. Negative number
9	There is no element common in	A. N and W B. E and W C. N and O D. Q and Q'
10	Union of the sets of rational and irrational numbers is called 6th set of	A. Natural numbers B. Real numbers C. Whole numbers D. Prime numbers
11	The set of rational number is represented by	A. W B. R C. Q' D. Q
12	Rational number is a number which can be written as a terminating decimal fraction or a	A. Non-terminating decimal fraction B. Non-recurring C. Recurring decimal fraction D. a, b and c
13	For each real number, there is a number which is its	A. Negative B. Positive C. Opposite D. Similar
14	The real number system contains.	A. Positive Numbers B. Negative numbers C. Zero D. (option a, b and c)
15	Gooch crucible is made of :	A. Brass. B. Porcelain. C. Bronze. D. ...

D. Gold.

16	Question Image	A. 0 B. 1 C. -1 D. None
17	If C is the mid point of AB and P is any point outside AB, then	
18	Question Image	A. A, B, C are coincident B. A, B, C are collinear C. Both A and B D. None of these
19	Question Image	
20	Question Image	
21	Question Image	
22	$3\mathbf{j} \cdot \mathbf{k} \times \mathbf{i}$	A. 0 B. 1 C. 3 D. 9
23	The angle between the vectors $3\mathbf{i} + \mathbf{j} - \mathbf{k}$ and $2\mathbf{i} - \mathbf{j} + \mathbf{k}$ is	
24	Question Image	A. A B. 0 C. Unit vector D. None
25	If the vector $2\mathbf{i} + 4\mathbf{j} - 7\mathbf{k}$ and $2\mathbf{i} + 6\mathbf{j} + x\mathbf{k}$ are perpendicular then $x = ?$	A. 0 B. 2 C. 4 D. 7
26	If the angle between two vectors with magnitude 6 and 2 is 60° when their scalar product is	A. 12 B. 6 C. 3 D. 0
27	Question Image	A. 0 B. 90° C. 180° D. 360°
28	Question Image	
29	The direction cosines of y-axis are	A. 1, 0, 0 B. 0, 1, 0 C. 0, 0, 1 D. 1, 1, 1
30	Question Image	A. $l^2 + m^2 + n^2 = 0$ B. $l^2 - m^2 + n^2 = 1$ C. $l^2 + m^2 + n^2 = 1$ D. $l^2 + m^2 - n^2 = 0$