# ECAT Mathematics Chapter 1 Number System

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | The identity element with respect to subtraction is | A. 0<br>B. -1<br>C. 0 and 1<br>D. None of thes |
| 2 | The multiplicative inverse of 2/3 is | A. 3/2<br>B. -2/3<br>C. -3/2<br>D. 1 |
| 3 | (a,0) x (c,0) = | A. (0,ac)<br>B. (ac,0)<br>C. (0,0)<br>D. (a,c) |
| 4 | If a set S contains n elements then P (S) has ..... number of elements | A. 2<sup>n</sup><br>B. 2<sup>n2</sup><br>C. 2.n<br>D. n<sup>2</sup> |
| 5 | ∀a,b ε R, ab = be is a | A. Commutative law of multiplication<br>B. Closure law of multiplication<br>C. Associative law of multiplication<br>D. Multiplicative identity |
| 6 | (a +b*i*) -c (c +d*i*) = | A. (a +b) = (c +d)<br>B. (a +c) + i(b +d)<br>C. (a -c) + (c -d)i<br>D. (a -c) +(b -d) i |
| 7 | If $Z_1$= 1 + i, $Z_2$= 2+3i, then $\|Z_2 - Z_1\|$ = ? | |
| 8 | If z=(x,y) then z has no multiplicative inverse when | A. x ≠ 0, y = 0<br>B. x = 0, y = 0<br>C. x = 0, y ≠ 0<br>D. None of these |
| 9 | Some of two real numbers is also a real number , this property is called: | A. Commutative property w.r.t addition<br>B. Closure property w.r.t. addition<br>C. Associative property w.r.t. addition<br>D. Distributive property w.r.t addition |
| 10 | √2 is a number | A. Rational<br>B. Irrational<br>C. Even<br>D. Odd |
| 11 | Associative law of multiplication | A. ab - ba<br>B. a(bc) = (ab) c<br>C. a(b + c) = ab +ac<br>D. (a +b)c = ac + bc |
| 12 | If a is any real number and a = a is called | A. symmetric property<br>B. Trichotomy Properties<br>C. Transitive Property<br>D. Reflexive Properties |
| 13 | Question Image | |
| 14 | Question Image | A. a = a<br>B. a < a<br>C. a > a<br>D. a<sup>2</sup>= a |
| 15 | Question Image | |
| 16 | Question Image | A. Closure law of addition<br>B. Associative law of addition<br>C. Commutative law of multiplication<br>D. Associative law of multiplication |
| 17 | A non-terminating, non-recurring decimal represent | A. A natural number<br>B. A rational number<br>C. An irrational number |

| | | |
|---|---|---|
| | | C. An irrational number<br>D. A prime number |
| 18 | Question Image | |
| 19 | In set builder notation the set {0,1,2,.....100} can be written as | A. {x / x∈ B ∧ x ≤ 100}<br>B. {x / x ∈ W ∧ x < 101}<br>C. {x / x ∈ Z ∧ x < 101}<br>D. The set of first 100 whole numbers |
| 20 | Question Image | A. A natural number<br>B. A rational number<br>C. An irrational number<br>D. A whole number |