

ECAT (Pre-Eng) Mathematics For Chapter 1 Number System

Sr	Questions	Answers Choice
1	Question Image	A. real part of z B. imaginary part of z C. conjugate of z D. modulus of z
2	Question Image	
3	Question Image	A. Reflexive property B. Symmetric property C. Cancellations property w.r.t. addition D. Transitive property
4	The value of i^{4n+1}	A. 1 B. -1 C. i D. $i^{sup>2</sup>}$
5	The product of complex numbers (a,b) and (c,d) is	A. (ac, bd) B. (ac-bd, ad+bc) C. (ab,cd) D. (ac+bd,ad-bc)
6	Every real number is	A. a positive integer B. a rational number C. a negative integer D. a complex number
7	The value of x and y when $(x + iy)^2 = 5 - 4i$	A. $x = 2, y = -1$ B. $x = -2, y = 1$ C. $x = 2, y = -i$ D. $x = 2, y = 2$
8	Every whole number is	A. A real number B. An irrational number C. A prime number D. A negative integer
9	Multiplicative inverse of 0 is	A. 0 B. 1 C. ± 1 D. Does not exist
10	If P is a whole number greater than 1, which has only P and 1 are factors. Then P is called	A. Whole number B. Prime number C. Even number D. Odd number
11	Question Image	A. Symmetric property B. Cancellation property w.r.t. multiplication C. Reflexive property D. Transitive property
12	The set of rational number is represented by	A. W B. R C. Q' D. $\frac{Q}{Q}$
13	Question Image	
14	What is the conjugate of $-6 - i$?	A. $-6 + i$ B. $6 + i$ C. $-6 - i$ D. $6 - i$
15	If $Z = (1,2)$, then $Z^{-1} = ?$	A. (0.2, 0.4) B. (-0.2, 0.4) C. (0.2, -0.4) D. (-0.2, -0.4)
16	$\forall z \in C$, multiplicative is	A. (1,1) B. (1,0) C. (0,1)

D. None of these

17 If $z_1 = 2 + 6i$ and $z_2 = 3 + 7i$, then which expression defines the product of z_1 and z_2 ?

- A. $36 + (-32)i$
- B. $-36 + 32i$
- C. $6 + (-11)i$
- D. $0, +(-12)i$

18 $a \cdot a^{-1} = a^{-1} \cdot a = 1$ is a

- A. Commutative law of multiplication
- B. Multiplicative identity
- C. Associative law of multiplication
- D. Multiplicative inverse

19 It is not possible to find the exact value of

- A. π
- B. $\sqrt[3]{9}$
- C. $\sqrt[3]{27}$
- D. $\sqrt{1}$

20 Question Image

- A. $(a + b)c = ac + bc$
- B. $a + b = b + a$
- C. $(a + b) + c = a + (b + c)$
- D. $a(b + c) = ab + ac$