

## ECAT Pre General Science Mathematics Online Test

| Sr | Questions                                                                       | Answers Choice                                                                                                    |
|----|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1  | QUQ'                                                                            |                                                                                                                   |
| 2  | Question Image                                                                  | A. Set of whole number<br>B. Rational Numbers<br>C. Complex numbers<br>D. Whole numbers                           |
| 3  | The set {1, 2, 3, 4, ....} is called                                            | A. Set of Natural numbers<br>B. Set of whole numbers<br>C. Set of rational number<br>D. Set of irrational numbers |
| 4  | Geometrically, the modulus of a complex number represents its distance from the | A. Point (1, 0)<br>B. Point (0, 1)<br>C. Point (1, 1)<br>D. Point (0, 0)                                          |
| 5  | Question Image                                                                  |                                                                                                                   |
| 6  | The multiplicative inverse of $1 - 2i$ is                                       |                                                                                                                   |
| 7  | The square root of $2i - 20i$ is                                                | A. $+(5 - 2i)$<br>B. $+(5 + 2i)$<br>C. $(5 - 2i)$<br>D. None of these                                             |
| 8  | The value of x, and y, when $(x + iy)^2 = 5 + 4i$                               | A. $X = 2, y = 1$<br>B. $X = -2, y = 1$<br>C. $X = 2, y = -1$<br>D. $X = 2, y = 2$                                |
| 9  | Question Image                                                                  | A. $-3 - 2i$<br>B. $3 + 2i$<br>C. $1 + 2i$<br>D. $1 - 2i$                                                         |
| 10 | What is the conjugate of $-7 - 2i$ ?                                            | A. $-7 + 2i$<br>B. $7 + 2i$<br>C. $7 - 2i$<br>D. None of these                                                    |
| 11 | Question Image                                                                  |                                                                                                                   |
| 12 | The equation $ x + 4  = x$ has solution                                         | A. $x = -2$<br>B. $x = 2$<br>C. $x = -4$<br>D. $x = 4$                                                            |
| 13 | The solution set of the equation $ 3x + 2  = 5$ is                              |                                                                                                                   |
| 14 | Question Image                                                                  | A. 15<br>B. $15i$<br>C. $-15i$<br>D. -15                                                                          |
| 15 | If $Z_1 = 1 + i$ , $Z_2 = 2 + 3i$ , then $ Z_2 - Z_1  = ?$                      |                                                                                                                   |
| 16 | If $Z = (1, 2)$ , then $Z^{-1} = ?$                                             | A. (0.2, 0.4)<br>B. (-0.2, 0.4)<br>C. (0.2, -0.4)<br>D. (-0.2, -0.4)                                              |
| 17 | The value of x, and y, when $(x + iy)^2 = 5 + 4i$                               | A. $X = 2, y = -1$<br>B. $X = -2, y = 1$<br>C. $X = 2, y = -1$<br>D. $X = 2, y = 2$                               |
| 18 | Question Image                                                                  | A. A positive integer<br>B. A negative integer<br>C. A natural number<br>D. An irrational number                  |
|    |                                                                                 | A. Rational number                                                                                                |

|    |                                                                                                     |                                                                                                  |
|----|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 19 | Every prime number is also                                                                          | B. Even number<br>C. Irrational number<br>D. Multiple of two numbers                             |
| 20 | $\frac{3}{2}$ is                                                                                    | A. An irrational number<br>B. Whole number<br>C. A positive integer<br>D. A rational number      |
| 21 | Question Image                                                                                      | A. A rational number<br>B. A irrational number<br>C. An even integer<br>D. A factor of 36        |
| 22 | 6 is                                                                                                | A. A prime integer<br>B. An irrational number<br>C. A rational number<br>D. An odd integer       |
| 23 | Zero is                                                                                             | A. An irrational number<br>B. A rational number<br>C. A negative integer<br>D. A positive number |
| 24 | If the angle between two vectors with magnitude 2 and 15 is $30^\circ$ then their scalar product is | B. 15<br>C. 30                                                                                   |
| 25 | Question Image                                                                                      | A. 12<br>B. 6<br>C. 8<br>D. none of these                                                        |
| 26 | Question Image                                                                                      |                                                                                                  |
| 27 | Question Image                                                                                      |                                                                                                  |
| 28 | Question Image                                                                                      |                                                                                                  |
| 29 | Question Image                                                                                      |                                                                                                  |
| 30 | Question Image                                                                                      |                                                                                                  |