

## ECAT Pre General Science Mathematics Online Test

| Sr | Questions                                                                                           | Answers Choice                                                                                                                                                       |
|----|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | The radius of the circle $(x - 1)^2 + (y + 3)^2 = 61$ is                                            | A. 8<br>B. 4<br>C. 64<br>D. None of these                                                                                                                            |
| 2  | The set $\{\{a,b\}\}$ is                                                                            | A. Infinite set<br>B. Singleton set<br>C. Two points set<br>D. None                                                                                                  |
| 3  | The straight lines represented by the equation $ax^2 + 2hxy + by^2 = 0$ intersects at               | A. (1,1)<br>B. (0,1)<br>C. (1,0)<br>D. (0,0)                                                                                                                         |
| 4  | 0 (zero) is                                                                                         | A. An irrational number<br>B. A rational number<br>C. A negative integer<br>D. A positive number                                                                     |
| 5  | The length of perpendicular from (3,1) to $4x + 3y + 20 = 0$ is                                     | A. 6<br>B. 7<br>C. 3<br>D. 8                                                                                                                                         |
| 6  | Question Image                                                                                      |                                                                                                                                                                      |
| 7  | $\pi$ is the ration of                                                                              | A. Area of a circle to its diameter<br>B. Area of a circle to its radius<br>C. Circumference of a circle to its diameter<br>D. Circumference of circle to its radius |
| 8  | Question Image                                                                                      |                                                                                                                                                                      |
| 9  | If one root of the equation $ix^2 - 2(i + 1)x + (2 - i) = 0$ is $2 - i$ , then the other root is    | A. -i<br>B. $2 + i$<br>C. i<br>D. $2 - i$                                                                                                                            |
| 10 | Question Image                                                                                      |                                                                                                                                                                      |
| 11 | Graph of the question $x^2 + y^2 = 4$ is                                                            | A. A circle<br>B. An ellipse<br>C. A parabola<br>D. A square                                                                                                         |
| 12 | The point on $y^2 = 4ax$ nearest to the focus has its abscissae equal to                            | A. -a<br>B. a<br>C. $a/2$<br>D. 0                                                                                                                                    |
| 13 | Question Image                                                                                      |                                                                                                                                                                      |
| 14 | Question Image                                                                                      | D. none of these                                                                                                                                                     |
| 15 | Period of cosec x is _____                                                                          |                                                                                                                                                                      |
| 16 | Question Image                                                                                      | A. 0<br>B. 1                                                                                                                                                         |
| 17 | If the lines $2x - 3y - 1 = 0$ , $3x - y - 5 = 0$ and $3x + py + 8 = 0$ meet at a unique point then | A. $p = -14$<br>B. $p = -1$<br>C. $p = 0$<br>D. $p = 12$                                                                                                             |
| 18 | Question Image                                                                                      | A. $\cos 3x + c$<br>B. $-\cos 3x + c$                                                                                                                                |
| 19 | The value of n, when ${}^nP_2 = 20$ is                                                              | A. 3<br>B. 4<br>C. 6<br>D. 5                                                                                                                                         |

D. 5

20

Question Image

- A. A rational number
- B. A natural number
- C. An irrational number
- D. An integer