

ECAT Mathematics Chapter 20 Analytic Geometry

| Sr | Questions | Answers Choice |
|----|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 1 | If (x,y) are the coordinates of a point P , then the first number of the ordered pair is called: | A. Ordinate B. Abscissa C. quadrant D. Cartesian |
| 2 | Bisectors of angles of a triangle are: | A. Collinear B. Concurrent C. Perpendicular D. zero |
| 3 | The points $(a,0), (0,b)$ and $(3a, -2b)$ are: | A. Collinear B. Vertices of isosceles triangle C. corner of a right-angled triangle D. None of these |
| 4 | x -axis divides the line segment joining points $(2,-3)$ and $(5,6)$ in the ratio: | A. $2 : 1$ B. $-2 : 1$ C. $1 : 2$ D. $-1 : 2$ |
| 5 | Three points $(-2,2)$ $(8,-2)$ and $(-4,3)$ are vertices of a : | A. Isosceles triangle B. right-angled triangle C. Equilateral triangle D. Rectangle |
| 6 | Shifting origin to $(-3,2)$, the new coordinate of $(-2,6)$ are: | A. $(1,4)$ B. $(2,4)$ C. $(-1,3)$ D. $(-1,4)$ |
| 7 | The distance of a point $(x \cos\theta, x \sin\theta)$ from origin is: | A. x B. $x \tan\theta$ C. $-\tan\theta$ D. $-\cot\theta$ |
| 8 | The medians of a triangle are: | A. Collinear B. Concurrent C. Perpendicular D. zero |
| 9 | The distance between the parallel lines $3x - 4y + 3 = 0$ and $3x - 4y + 7 = 0$ is: | A. $2/3$ B. $9/13$ C. $4/5$ D. $7/12$ |
| 10 | The points A, B and C are said to be collinear if they: | A. be on same line B. have same slope C. Lie on a same plane D. options a & b |
| 11 | In translation of axes, _____ is shifted to another point in the plane. | A. x -axis B. y -axis C. origin D. Point |
| 12 | Shifting origin to $(-3,2)$, the new coordinates of $(-6,9)$ are: | A. $(-9,7)$ B. $(3,7)$ C. $(-3,7)$ D. $(3,-7)$ |
| 13 | The two lines $5x + 7y = 35$ and $3x - 7y = 21$, intersect at the point: | A. $(7,5)$ B. $(1,2)$ C. $(2,7)$ D. $(7,0)$ |
| 14 | The points $(3,1)$, $(-2,-3)$ and $(2,2)$ are the vertices of : | A. Equilateral triangle B. Isosceles triangle C. right -angled triangle D. rhombus |
| 15 | The cartesian system of coordinates was introduced by: | A. Eulaer B. Euclid C. Descrates D. Macleam |

16 The distance from the point $P(6, -1)$ to the line $6x - 4x + 9 = 0$ is:

A. $5/7$
B. $\sqrt{52}/7$
C. $2/48$
D. $49/\sqrt{52}$

17 If a point (p, q) is equidistant from the points $(5, 3)$ and $(-2, -4)$, then $p + q =$

A. -1
B. 1
C. 3
D. -3

18 The two lines $x + y = 0$ and $2x - y + 3 = 0$ intersect at the point:

A. $(-1, 1)$
B. $(2, 3)$
C. $(1, 3)$
D. $(-1, 2)$

19 The points $(-1, 3)$, $(3, 0)$ are the vertices of:

A. Right-angled triangle
B. Isosceles triangle
C. Equilateral triangle
D. square

20 Shifting origin to $(-4, -6)$, the new coordinates of $(-6, -8)$ are:

A. $(-1, 2)$
B. $(-2, -2)$
C. $(1, -2)$
D. $(3, -2)$
