

ECAT Mathematics Chapter 20 Analytic Geometry

Sr	Questions	Answers Choice
1	The distance between lines $3x + 4y = 9$ and $6x + 8y = 15$ is:	A. $2/3$ B. $3/10$ C. 8 D. $6/5$
2	The two vertices of a triangle are $(-2,4)$ and $(5,4)$. If its centroid is $(5,6)$, then third vertex is:	A. $(-10,12)$ B. $(12,-10)$ C. $(12,10)$ D. $(10,12)$
3	The quadrilateral with the vertices $(-3,-2)$, $(2,-1)$, $(3,4)$ and $(-2,3)$ is a:	A. Square B. Rectangle C. rhombus D. parallelogram
4	The points $(-1,3)$, $(3,0)$ are the vertices of:	A. Right-angled triangle B. Isosceles triangle C. Equilateral triangle D. square
5	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
6	If points A $(6,-1)$, B $(1,3)$ and C $(x,8)$ are such that $AB=BC$, then $x =$	A. 3.5 B. -3.5 C. $3,-5$ D. $-3,-5$
7	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
8	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. $49/\sqrt{52}$
9	If points $(5, 5)$, $(10, x)$ and $(-5, 1)$ are collinear, $x =$	A. 5 B. 3 C. 9 D. 7
10	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. $-1 : 2$
11	Shifting origin to $(-4,-6)$, the new coordinates of $(-6,-8)$ are:	A. $(-1,2)$ B. $(-2,-2)$ C. $(1,-2)$ D. $(3,-2)$
12	Bisectors of angles of a triangle are:	A. Collinear B. Concurrent C. Perpendicular D. zero
13	The in-centre of triangle whose vertices are $(0,0)$, $(5,12)$ and $(16,12)$ is:	A. $(9,7)$ B. $(2,7)$ C. $(9,2)$ D. $(7,9)$
14	The cartesian system of coordinates was introduced by:	A. Eulaer B. Euclid C. Descrates D. Macream
15	The distance from the point P $(3,4)$ to the line $y = 2x - 3$ is:	A. $\sqrt{5}$ B. $\sqrt{3}$ C. $2\sqrt{3}$ D. $1/\sqrt{5}$

16 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. $7/12$

17 The points $(0, -1)$, $(2, 1)$, $(0, 3)$ and $(-2, 1)$ are the corner of:
A. Square
B. rhombus
C. Parallelogram
D. rectangel

18 The distance of a point $(x \cos\theta, x \sin\theta)$ from origin is:
A. x
B. $x \tan\theta$
C. $-\tan\theta$
D. $-\cot\theta$

19 If the points (a, b) , (x, y) and $(a-x, b-y)$ are collinear, then $ay =$
A. bx
B. $b-y$
C. $a-x$
D. x

20 The length of perpendicular from $(-2, 3)$ to the line $y = 2x - 3$ is:
A. $5\sqrt{2}$
B. 6
C. $2\sqrt{5}$
D. 7.5
