

ECAT Mathematics Chapter 20 Analytic Geometry

Sr	Questions	Answers Choice
1	The distance between lines $3x + 4y = 9$ and $6x + 8y = 15$ is:	A. $\frac{2}{3}$ B. $\frac{3}{10}$ C. 8 D. $\frac{6}{5}$
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. $\frac{5}{7}$ B. $\frac{\sqrt{52}}{7}$ C. $\frac{2}{48}$ D. $\frac{49}{\sqrt{52}}$
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. $\frac{1}{\sqrt{5}}$

16	The distance between the parallel lines $3x - 4y + 3 = 0$ and $3x - 4y + 7 = 0$ is:	A. $\frac{2}{3}$ B. $\frac{9}{13}$ C. $\frac{4}{5}$ D. $\frac{7}{12}$
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