ECAT Mathematics Chapter 20 Analytic Geometry Online Test

Sr	Questions	Answers Choice
1	The ratio in which the line y- x+ 2 =0 divides the line joining (3,-1) and (8,9) is	A. 2:3 B. -2:3 C. 3:2 D. -3:2
2	The obtuse angle between lines = -2 and y = x +2 is	A. 120° B. 135° C. 150° D. 140°
3	Area of the triangle whose vertices are (2,3),(0,1),(0,0) is	A. 6 B. 2 C. 4 D. 1
4	Question Image	A. 1 B. 0 C. 5 D. 2
5	If distance of (a,b) from origin is 5 then	A. a²+ b²=5 B. a = 5 C. b = 5
6	Area bounded between the curve xy=2 and the lines x=1 and x=2	A. ln2 square units B. ln√2 square units C. ln4 square units D. Square units
7	If l, m, n are the d.c.'s of a line, then	A. l2+ m2+ n2= 0 B. l2+ m2+ n2= 1 C. l + m + n = 1 D. l = m = n = 1
8	For all points (x,y) in first quadrant	A. x > 0 , y < 0 B. x > 0 , y > 0 C. x < 0 , y < 0 D. x < 0 , y > 0
9	The distance of the point (a,b) from y-axis is	A. a B. b C. a + b
10	The line l is horizontal if	A. m is undefined B. m=0 C. m=1 D. m=0-1
11	The angle between lines xy =0 is	A. 45° B. 60° C. 90° D. 180°
12	If origin is the mid point of (a,3) and (5,b) then	A. a = -5 , b = -3 B. a = 5 , b =3 C. a = -5 , b = 3 D. a = 5 , b = -3
13	The distance of the point (1.1) from the origin is	A. 0 B. 2
14	Question Image	A. 3 B. 1 C. 4
15	Question Image	
16	The point of concurrency of the angle bisectors of a triangle is called	A. incentre B. circumcentre C. e-centre D. centroid
17	The intercepts of the plane 2x - 3y + 4z = 12 on the co-ordinate axes are given by	A. 2, -3, 4 B. 6, -4, -3 C. 6, -4, 3

		D. 3, -2, 1.5
18	If k2x2 +2hxy- 4y2 =0 represents two perpendicular lines then	A. k = 2 B. k = ±2 C. k = -2 D. k ≠0
19	The distance between the points (0 , 0) and (2, 1) is	A. 5 C. 0 D. 3
20	The coordinates of the point that divides the join of A(-6,3) and B(5, -2) in the ratio 2:3 internally	
21	For all points (x,y) in fourth quadrant	A. x > 0 , y < 0 B. x > 0 , y > 0 C. x < 0 , y < 0 D. x < 0 , y > 0
22	The points (5, -4, 2),(4, -3, 1),(7, -6, 4),(8, -7, 5) are vertices of a	A. Square B. Parallelogram C. Rectangle D. Rhombus
23	The slope of x-axis is	A. 0 B. undefined C. 1
24	For all points (x,y) on x-axis	A. x is positive B. x is negative C. y = 0 D. y is negative
25	The distance between the points A(3,1) and B(-2,-4) is	A. 5 C. 25 D. 10
26	Question Image	
27	The distance of the plane 2x - 3y + 6z + 14 = 0 from the origin is	A. 14 B. 2 C. -2 D. 11
28	The mid point of the line segment joining the points (4,0) and (0,4) is	A. (4,4) B. (2,2) C. (-4,-4) D. (-2,-2)
29	The distance between the points A(-8,3) and B(2,-1) is	B. 116 D. none of these
30	The equations of the line thro' the point (2, 3, -5) and equally inclined to the axis are	
31	The distance of the points (3, 4, 5) from y-axis is	
32	The st. lines whose direction cosines satisfy al + bm + cn = 0, fmn + gnl + hlm=0 are perpendicular if	
33	Question Image	A. 1 B. 2 C. -1 D. 0
34	Question Image	
35	The distance of the point (-2 , -3) from x-axis is	A. 2 B. -3 C. 3 D. 5
36	The direction cosines of a line equally inclined with co-ordinate axes are	
37	Question Image	
38	The distance of the point (-2,3) from x-axis is	A. -2 B. 2 C. 3 D. 1
39	The distance of the point (2.3) from x-axis is	A. 2 B. 3 C. 5
40	If A(a,b) lies on 3x +2y =13 and point B(b,a) lies on x-y =5 then equation of AB is	A. x- y= 5 B. x+ y+ =5 C. x+ y= -5

		D. 5x +5y =21
41	Question Image	A. -10 B. 10/7 C. -10/7 D. -7/10
42	The equation of line passing through intersection of line x = 0 and y = 0 and the point (2,2) is	A. y = x B. y = x - 1 C. y = x + 1 D. y = x + 1
43	The exterior angle of the interior angle C of he quadrilateral whose vertices are A(5,2),B(-2,3),C(-3,-4),D(4,-5) is	A. 30° B. 60° C. 45° D. 90°
44	The point which divides the line segment joining the points (a, b) and (c, d) in the ratio 2 : 3 internally is	D. none of these
45	The distance between the points (1, 2) and (2, 1) is	A. 3 B. 6
46	The distance between two points P(x_1, y_1) and Q (x_2, y_2) is	
47	Question Image	A. 1 B. 2 C. 3
48	Any horizontal line divided the plane into	A. Left half plane B. Upper and lower half planes C. Infinite number of horizontal liens D. None of these
49	The points A(+1,-1),B(3,0),C(3,7),D(1,8) are vertices of	A. Square B. Parallelogram C. Rectangle D. Trapezium
50	The square of the distance between two points P(x_1, y_1) and Q(x_2, y_2) is	
51	The straight lines represented by the equation ax2+ 2hxy +by2 =0 intersects at	A. (1,1) B. (0,1) C. (1,0) D. (0,0)
52	The distance of the point (-2, -3) from the origin is	A. 2 B. -5 C. -3
53	The direction cosines of any normal to the xy-plane are	A. <1, 0, 0> B. <0, 1, 0> C. <1, 1, 0> D. <0, 0, 1>
54	If $d_1$is the distance between (0,0) and (1,2) and $d_2$is the distance between (0,0) and (-1,-2) the	A. d₁< d₂ B. d₁> d₂ C. d₁= d₂ D. none of these
55	Number of lines passing through three non-collinear points is	A. 2 B. 3 C. 1 D. 0 E. ∞
56	Question Image	A. 0 B. 1 D. undefined
57	If A(x_1, y_1) , B(x_2, y_2) and C(x_3, y_3) are the vertices of a triangle then its centroid is	
58	The inclination of a line parallel to y-axis is	
59	The distance of the point (-2 , -3) from y-axis is	A. 2 B. -2 C. 3 D. -3
60	The point R dividing internally the line joining the points P(x_1, y_1) and Q(x_2, y_2) in the ratio K_1: K_2has the coordinates	
61	The point of concurrency of the right bisectors of the sides of a triangle is called	A. incentre B. circum center C. e-center D. centroid
	The coordinates of the point that divides the join of A(-6,3) and B(5,-2) in the ratio 2:3	

62	The coordinates of the point that divides the join of A(-6,3) and B(3, -2) in the ratio 2:3 externally are	
63	Question Image	A. a B. 2a C. 3a D. 4a
64	The two lines y = 2x and x =2y are	A. Parallel B. Perpendicular C. Equally inclined with axes D. Congruent
65	Question Image	A. 0 D. undefined
66	The distance between the points (0,0) and (x,y) is	A. x²+ y² B. x C. y
67	If distance between (a,2) and (0,0) is 2 then a = _____	A. 0 B. 2 C. 4
68	The equation of the line perpendicular to x- axis and passing through (-5,3) is	A. y -3 =0 B. x+ 3 =0 C. y- 3 =∞ D. x +5 =0
69	The point of concurrency of the medians of the ΔABC is called its	A. Orthocenter B. Centriod C. Circumcentre D. Incentre
70	The coordinates of a point P(x,y) referred to XY-system are	A. (x+y,y+k) B. (x-h,y-k) C. (x,y) D. (x-h,y-k)
71	If origin is the mid point of (a, -3) and (-5, b) then	A. a = -5 , b = -3 B. a = 5 , b =3 C. a = -5 , b = 3 D. a = 5 , b = -3
72	If distance of (a,b) from x-axis is 2 then	A. a = 2 B. b = 2 C. a = b D. b = 4
73	If the points (a,2b):(c,a+b):(2c-a,h) lie on the same line then	A. h=2a B. h=a+b C. h=ab D. h=ac
74	The projections of a line segment on x, y, z axes are 12, 4, 3. The length and the direction cosines of the line segment are	
75	If $d_1$is the distance between (0,0) and (1,2) and $d_2$is the distance between (0,0) and (2,1) then	A. d₁= d₂ B. d₁<d₂ C. d_{1>}d₂ D. none of these
76	The distance of the point (a, b) from x-axis is	A. a B. b C. a + b
77	The mid point of the line segment joining the points (3,-1) and (-3,1) is	A. (3,-1) B. (0,0) C. (2,2) D. (4,4)
78	If line through (4,3) and (2,k) is perpendicular to y =2x +3, then k =_____	A. -1 B. 1 C. -4 D. 4
79	If (2, 3) is the mid point of (a, 3) and (5, b) then	A. a = 1 , b = -3 B. a = -1 , b = 3 C. a = 1 , b =3 D. a = -1 , b = -3
80	Question Image	A. 0 B. 1
81	Question Image	A. 1 B. 2 C. 3
		A. a = 2

82	If distance of (a,b) from y-axis is 2 then	B. b = 2 C. a = b D. a = 4
83	The point P (5,8) and the origin lie on the side of the line 3x+ 7y+ 15 =0	A. Same side B. P above and origin below C. Opposite side D. P below and origin above
84	The lines l1and l2intersect. The shortest distance between them is	A. Positive B. Negative C. Zero D. Infinity
85	Question Image	
86	The point which divides the line joining the points (2, 4, 5) and (3, 5, -4) in the ratio -2 : 3 lines on	A. ZOX plane B. XOY plane C. YOZ plane D. None of these
87	For all points (x,y) in second quadrant	A. x > 0 , y < 0 B. x > 0 , y > 0 C. x < 0 , y < 0 D. x < 0 , y > 0
88	Question Image	A. 0 B. 1
89	Question Image	
90	The length of perpendicular from (3,1) to 4x +3y +20 =0 is	A. 6 B. 7 C. 3 D. 8
91	The measure of the acute angle between the lines represented by x2 -xy -6y2 =0 is	A. 120° B. 30° C. 130° D. 45°
92	For all points (x,y) on y-axis	A. x is positive B. x = 0 C. x is negative D. y = 0
93	(-28,12) divides the join of A(-6,3) and B(5,-2) in ratio	A. 1:2 B. 3:2 C. 2:3 D. 2:1
94	Question Image	
95	If distance between (3,b) and (0,0) is 3 then b = _____	A. 3 C. 9 D. 0
96	Question Image	
97	Question Image	A. 9 B. -9 C. 0 D. 1
98	For all points (x,y) in third quadrant	A. x > 0 , y < 0 B. x > 0 , y > 0 C. x < 0 , y < 0 D. x < 0 , y > 0
99	The points (5, 2, 4)(6, -1, 2) and (8, -7, k) are collinear if k is equal to	A. -2 B. 2 C. 3 D. -1
100	The centroid of a triangle divides each median in the ratio	A. 2 : 1 B. 3 : 1 C. 3 : 2 D. 1 : 1
101	The line through the intersection of the lines x+ 2y+ 3= 0 : 3x +4y +7 =0 and making equal intercepts on the axes is	A. x+ y+ 1= 0 B. x+ y- 2= 0 C. x+ y+ 2= 0 D. 2x +y +2 =0
102	The mid point of the line segment joining the points (a,b) and (b,a) is	
		A. x-axis

103	Question Image	B. y-axis C. z-axis D. None of these
104	The distance between the points (0 , 0) and (1, 2) is	A. 5 C. 0 D. 3
105	The distance of the point (2, -3) from x-axis is	A. -2 B. -3 C. 2 D. 3
106	The points A(3,1),B(-2,-3),C(2,2) are vertices of an (an)	A. Right triangle B. Equilateral triangle C. Isosceles triangle D. Scalene triangle
107	The mid point of the line segment joining the points A(-8,3) and B(2,-1) is	A. (-3,1) B. (-6,2) C. (5,2) D. (-5,2)
108	Question Image	D. none of these
109	The equation of the plane which bisects the line joining (2, 3, 4) and (6, 7, 8) is	A. x + y + z - 15 = 0 B. x - y + z - 15 = 0 C. x - y - z - 15 = 0 D. x + y + z + 15 = 0
110	The distance of the point (2,-3) from y-axis is	A. 2 B. -3 C. 1 D. 5
111	A joint equation of the lines through the origin and perpendicular to the lines ax2 +2hxy +by2 =0 is indentical is ax2 +2hxy +by2 =0 if	A. h2 = ab B. a + b =0 C. a = b D. a≠ b E. a = b = 0
112	The distance of the point (-2 , 3) from y-axis is	A. 2 B. -2 C. 3 D. 1
113	The equation of the sphere thro' the origin and making intercepts a, b, c on co-ordinate axes is	A. x²+ y²+ z²+ ax + by + cz = 0 B. x²+ y²+ z²- 2ax - 2 by - 2 cz = 0 C. x²+ y²+ z²= a + b + c D. x²+ y²+ z²- ax - by - cz =0
114	The distance between the points (2, 2) and (3, 3) is	A. 10 C. 5 D. 2
115	64.A point (x, y, z) moves parallel to xy plane. Which of the three variables x, y, z remain fixed?	A. z B. x C. y D. x and y
116	Question Image	A. Parallel to the plane B. At right angles to the plane C. Lies in the plane D. Meet the plane obliquely
117	Question Image	A. 0 B. 1 C. -1 D. undefined
118	For different values of k equation 4x+5y =k represents	A. Parallel lines B. Lines parallel to x -axis C. Perpendicular lines D. Lines parallel to y -axis
119	Question Image	A. 0 B. 1
120	The mid point of the line joining the points $P(x_1, y_1)$ and $Q(x_2, y_2)$ is	
121	The distance between the points (2,3) and (3,2) is	A. 5 C. 2 D. 10
122	The center of the sphere which passes thro' (a, 0, 0), (0, b, 0), (0, 0, c) and (0, 0, 0) is	

122	The center of the sphere which passes thro' (a, 0, 0), (0, b, 0), (0, 0, c) and (0, 0, 0) is	
123	A quadrilateral whose diagonals are perpendicular bisector of each other is	A. Square B. Rectangle C. Rhombus D. Parallelogram E. Trapezium
124	The points (5, 0, 2), (2, -6, 0), (4, -9, 6) and (7, -3, 8) are vertices of a	A. Square B. Rhombus C. Rectangle D. Parallelogram
125	The foot of perpendicular from (α,β,γ) only y-axis is	A. (α, 0, 0) B. (0,β, 0) C. (0, 0, γ) D. (0, 0, 0)
126	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 B. p = -1 C. p =0 D. p=12
127	The slope of y-axis is	A. 0 B. undefined C. 1
128	Question Image	
129	The distance of the point (2,3) from origin is	B. 5 C. 2 D. 3
130	The point R dividing externally the line joining the points P(x_1, y_1) and Q(x_2, y_2) in the ratio k_1: $k_2$has the coordinates	
131	The point of concurrency of the medians of a triangle is called	A. incentre B. circumcentre C. e-centre D. centroid
132	The distance of the point (2,3) from y-axis is	A. 2 B. 3 C. 5
133	The mid point of the line segment joining the points A(3,1) and B(-2,-4) is	A. (1, -3)
134	The inclination of a line parallel to x-axis is	
135	The equation of the sphere passing thro' (0, 0, 0), (a, 0, 0), (0, b, 0), (9, 0, c) is	A. x²+ y²+ z²+ 2 ax +2 by + 2cz = 0 B. x²+ y²+ z²- 2ax - 2 by - 2cz = 0 C. x²+ y²+ z²- ax - by - cz = 0 D. x²+ y²+ z²+ ax + by + cz = 0
136	Question Image	A. 0 B. 1
137	Question Image	A. 0 B. 2 C. 4/3 D. 5/3
138	Question Image	A. (3, 1, -2) B. (3, -2, 1) C. (2, -1, 3) D. (-1, -2, -3)