Mathematics ECAT Pre Engineering Chapter 18 Analytic Geometry Online Test

Sr	Questions	Answers Choice
1	The distance between the points (2, 2) and (3, 3) is	A. 10 C. 5 D. 2
2	The distance of the point (2,-3) from y-axis is	A. 2 B. -3 C. 1 D. 5
3	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
4	Question Image	A. Parallel to the plane B. At right angles to the plane C. Lies in the plane D. Meet the plane obliquely
5	The inclination of a line parallel to y-axis is	
6	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	
7	Question Image	A. 0 B. 1
8	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
9	The distance of the point (-2 , 3) from y-axis is	A. 2 B. -2 C. 3 D. 1
10	Number of lines passing through three non-collinear points is	A. 2 B. 3 C. 1 D. 0 E. ∞
11	Question Image	A. 3 B. 1 C. 4
12	If distance of (a,b) from x-axis is 2 then	A. a = 2 B. b = 2 C. a = b D. b = 4
13	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	
14	Question Image	A. 0 B. 1
15	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
16	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
17	(-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
18	The inclination of a line parallel to x-axis is	
		A. x²+ y²

19	The distance between the points (0,0) and (x,y) is	A. x²+ y²+ z²+ 2 ax +2 by + 2cz = 0 B. x C. y
20	The distance of the point (2,3) from y-axis is	A. 2 B. 3 C. 5
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	If k2x2 +2hxy- 4y2 =0 represents two perpendicular lines then	A. k = 2 B. k = ±2 C. k = -2 D. k ≠0
23	The point of concurrency of the angle bisectors of a triangle is called	A. incentre B. circumcentre C. e-centre D. centroid
24	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
25	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
26	The coordinates of the point that divides the join of A(-6,3) and B(5, -2) in the ratio 2:3 internally	
27	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
28	The distance of the points (3, 4, 5) from y-axis is	
29	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
30	The coordinates of the point that divides the join of A(-6,3) and B(5, -2) in the ratio 2:3 externally are	
31	The slope of y-axis is	A. 0 B. undefined C. 1
32	The square of the distance between two points $P(x_1, y_1)$ and $Q(x_2, y_2)$ is	
33	Question Image	A. 1 B. 2 C. -1 D. 0
34	If distance of (a,b) from origin is 5 then	A. a²+ b²=5 B. a = 5 C. b = 5
35	The distance of the point (-2 , -3) from y-axis is	A. 2 B. -2 C. 3 D. -3
36	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	
37	Question Image	
38	Question Image	
39	The slope of x-axis is	A. 0 B. undefined

	The slope of x axis is	B. undefined C. 1
40	Question Image	A. 1 B. 2 C. 3
41	The distance of the point (-2 , -3) from x-axis is	A. 2 B. -3 C. 3 D. 5
42	Area of the triangle whose vertices are (2,3),(0,1),(0,0) is	A. 6 B. 2 C. 4 D. 1
43	Question Image	D. none of these
44	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
45	Question Image	A. 0 B. 1
46	Question Image	A. 0 B. 1 D. undefined
47	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°
48	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
49	The distance of the point (1.1) from the origin is	A. 0 B. 2
50	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
51	The distance of the point (2, -3) from x-axis is	A. -2 B. -3 C. 2 D. 3
52	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>
53	The point R dividing internally the line joining the points $P(x_1, y_1)$ and $Q(x_2, y_2)$ in the ratio $K_1: K_2$has the coordinates	
54	Question Image	
55	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)
56	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
57	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
58	Question Image	A. 1 B. 0 C. 5 D. 2
59	The angle between lines xy =0 is	A. 45° B. 60° C. 90° D. 180°

60	The obtuse angle between lines = -2 and y = x +2 is	A. 120° B. 135° C. 150° D. 140°
61	The distance between the points (1, 2) and (2, 1) is	A. 3 B. 6
62	Question Image	A. x-axis B. y-axis C. z-axis D. None of these
63	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
64	The distance between two points P(x_1, y_1) and Q (x_2, y_2) is	
65	The mid point of the line segment joining the points A(3,1) and B(-2,-4) is	A. (1, -3)
66	Question Image	A. a B. 2a C. 3a D. 4a
67	The distance between the points (0 , 0) and (1, 2) is	A. 5 C. 0 D. 3
68	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
69	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
70	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
71	The distance of the point (2.3) from x-axis is	A. 2 B. 3 C. 5
72	The distance of the plane 2x - 3y + 6z + 14 = 0 from the origin is	A. 14 B. 2 C. -2 D. 11
73	For all points (x,y) on x-axis	A. x is positive B. x is negative C. y = 0 D. y is negative
74	The distance between the points A(-8,3) and B(2,-1) is	B. 116 D. none of these
75	If distance between (3,b) and (0,0) is 3 then b = _____	A. 3 C. 9 D. 0
76	Question Image	
77	Question Image	A. 0 B. 2 C. 4/3 D. 5/3
78	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
79	Question Image	
80	For all points (x,y) on y-axis	A. x is positive B. x = 0 C. x is negative D. y = 0
		A. incentre

81	The point of concurrency of the medians of a triangle is called	B. circumcentre C. e-centre D. centroid
82	The center of the sphore which passes thro' (a, 0, 0), (0, b, 0), (0, 0, c) and (0, 0, 0) is	
83	Question Image	A. (3, 1, -2) B. (3, -2, 1) C. (2, -1, 3) D. (-1, -2, -3)
84	Question Image	A. 0 B. 1
85	The distance between the points (0 , 0) and (2, 1) is	A. 5 C. 0 D. 3
86	Question Image	A. 1 B. 2 C. 3
87	The length of perpendicular from (3,1) to 4x +3y +20 =0 is	A. 6 B. 7 C. 3 D. 8
88	The distance of the point (-2,3) from x-axis is	A. -2 B. 2 C. 3 D. 1
89	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
90	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)
91	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)
92	Question Image	A. 9 B. -9 C. 0 D. 1
93	Question Image	
94	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)
95	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
96	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
97	The distance of the point (a,b) from y-axis is	A. a B. b C. a + b
		A. 2

98	The distance of the point (-2, -3) from the origin is	A. 2 B. -5 C. -3
99	Question Image	A. 0 B. 1 C. -1 D. undefined
100	Question Image	A. 0 D. undefined
101	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
102	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
103	The line l is horizontal if	A. m is undefined B. m=0 C. m=1 D. m=0-1
104	The distance between the points A(3,1) and B(-2,-4) is	A. 5 C. 25 D. 10
105	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
106	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
107	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
108	The equations of the line thro' the point (2, 3, -5) and equally inclined to the axis are	
109	The distance of the point (2,3) from origin is	B. 5 C. 2 D. 3
110	Question Image	
111	The st. lines whose direction cosines satisfy al + bm + cn = 0, fmn + gnl + hlm=0 are perpendicular if	
112	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)
113	The distance of the point (a, b) from x-axis is	A. a B. b C. a + b
114	The mid point of the line segment joining the points (a,b) and (b,a) is	
115	If distance of (a,b) from y-axis is 2 then	A. a = 2 B. b = 2 C. a = b D. a = 4
116	Question Image	A. -10 B. 10/7 C. -10/7 D. -7/10
117	The direction cosines of a line equally inclined with co-ordinate axes are	
118	The measure of the acute angle between the lines represented by x2 -xy -6y2 =0 is	A. 120° B. 30° C. 130° D. 45°
119	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
120	If distance between (a,2) and (0,0) is 2 then a = _____	A. 0 B. 2 C. 4
121	The mid point of the line joining the points P(x_1, y_1) and Q(x_2, y_2) is	
122	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
123	The two lines y = 2x and x =2y are	A. Parallel B. Perpendicular C. Equally inclined with axes D. Congruent
124	The distance between the points (2,3) and (3,2) is	A. 5 C. 2 D. 10
125	The lines l1and l2intersect. The shortest distance between them is	A. Positive B. Negative C. Zero D. Infinity
126	If line through (4,3) and (2,k) is perpendicular to y =2x +3, then k =_____	A. -1 B. 1 C. -4 D. 4
127	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
128	The centroid of a triangle divides each median in the ratio	A. 2 : 1 B. 3 : 1 C. 3 : 2 D. 1 : 1
129	Question Image	
130	A quadrilateral whose diagonals are perpendicular bisector of each other is	A. Square B. Rectangle C. Rhombus D. Parallelogram E. Trapezium
131	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. d<sub>1</sub< d₂ B. d₁ d₂ C. d₁= d₂ D. none of these
132	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)
133	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
134	The point of concurrency of the medians of the ΔABC is called its	A. Orthocenter B. Centriod C. Circumcentre D. Incentre
135	Question Image	
136	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
137	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
138	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