

ECAT Pre Engineering Entry Test

Sr	Questions	Answers Choice
1	$\sin 90^\circ = \underline{\hspace{2cm}}$	A. -1 B. 0 C. 1 D. Undefined
2	$\cos 0^\circ = \underline{\hspace{2cm}}$	A. -1 B. 0 C. 1 D. Undefined
3	$\cos 60^\circ = \underline{\hspace{2cm}}$	A. 1 B. 2 C. $\frac{1}{2}$ D. 3
4	$\operatorname{cosec} 60^\circ = \underline{\hspace{2cm}}$	
5	$\tan 30^\circ = \underline{\hspace{2cm}}$	
6	$\sec 30^\circ = \underline{\hspace{2cm}}$	
7	$\cot 45^\circ = \underline{\hspace{2cm}}$	
8	$\sin 45^\circ = \underline{\hspace{2cm}}$	
9	Question Image	A. I quadrant B. II quadrant C. III quadrant D. IV quadrant
10	Question Image	A. I quadrant B. II quadrant C. III quadrant D. IV quadrant
11	Question Image	A. I quadrant B. II quadrant C. III quadrant D. IV quadrant
12	Question Image	A. I quadrant B. II quadrant C. III quadrant D. IV quadrant
13	Question Image	
14	Question Image	A. -1 B. 0 C. 1 D. None of these
15	Question Image	A. -1 B. 0 C. 1 D. None of these
16	Question Image	
17	The equation of the circle with centre (5, -2) and radius 4 is	A. $(x-5)^2 + (y+2)^2 = 16$ B. $(x-5)^2 + (y+2)^2 = 4$ C. $(x-5)^2 + (y-2)^2 = 16$ D. $(x-5)^2 + (y-2)^2 = 4$
18	The equation of the circle with centre (-3, 5) and radius 7 is	A. $(x-3)^2 + (y+5)^2 = 7^2$ B. $(x-3)^2 + (y-5)^2 = 7^2$ C. $(x+3)^2 + (y+5)^2 = 7^2$ D. $(x+3)^2 + (y-5)^2 = 7^2$

		D. $(x+3)^2 + (y-5)^2 = 7$
19	The equation of the circle with centre origin and radius r is	A. $x^2 + y^2 = 1$ B. $x^2 + y^2 = r^2$ C. $x^2 + y^2 = 0$ D. $x^2 - y^2 = r^2$
20	The equation of the circle with centre $(-h, -k)$ and radius r is	A. $(x+h)^2 + (y+k)^2 = r^2$ B. $(x+h)^2 + (y-k)^2 = r^2$ C. $(x-h)^2 + (y+k)^2 = r^2$ D. $(x-h)^2 + (y-k)^2 = r^2$
21	Question Image	
22	Question Image	A. 0 B. 1 C. -1 D. 2
23	Question Image	
24	The equation of the circle with centre (h, k) and radius r is	A. $(x+h)^2 + (y+k)^2 = r^2$ B. $(x+h)^2 + (y-k)^2 = r^2$ C. $(x-h)^2 + (y+k)^2 = r^2$ D. $(x-h)^2 + (y-k)^2 = r^2$
25	The constant distance of all points of the circle from its centre is called the	A. radius of the circle B. secant of the circle C. chord of the circle D. diameter of the circle
26	The fixed point from which all the points of a circle are equidistant is called the	A. chord of the circle B. centre of the circle C. diameter of the circle D. radius of the circle
27	Question Image	
28	If the cutting plane is parallel to the axis of the cone and intersects both of its nappes, then the curve of intersection is	A. an ellipse B. a hyperbola C. a circle D. a parabola
29	Question Image	A. I and II quadrants B. I and III quadrants C. II and III quadrants D. II and IV quadrants
30	If the intersecting plane is parallel to a generator of the cone, but intersects its one nappe only, the curve obtained is	A. an ellipse B. a hyperbola C. a circle D. a parabola