FA Part 2 Mathematics Chapter 6 Test Online

Sr	Questions	Answers Choice
1	The radius of circle $x^2 + y^2 + ax + by + c = 0$ is:	D. None
2	If equation of circle is $(x - h)^2 + (y - k)^2 = r^2$, then center of a circle:	A. (-h, -k) B. (h, k) C. (-h, k) D. (h, -k)
3	The axis of the parabola $x^2 = 4ay$ is:	A. x = 0 B. x = -a C. y = 0 D. y = -a
4	If a point lies inside a circle, then its distance from the center is:	A. Equal to the radius B. Less then the radius C. Greater then the radius D. Equal to or greater than the
5	The conic is a parabola, if:	A. e = 1 B. e > 1 C. 0 < e < 1 D. e = 0
6	The equation $x^2 + y^2 + 2x + 3y = 10$ represents a:	A. A pair of lines B. Circle C. Ellipse D. Hyperbola
7	Perpendicular dropped from the center of a circle on a chord _____ the chord:	A. Normal B. Bisects C. Equal to D. None of these
8	If the equation of the parabola is y2 = 4ax, then opening of the parabola is to the right of the:	A. x-axis B. y = x C. y-axis D. x + y =0
9	Question Image	A. Circle B. Parabola C. Hyperbola D. Ellipse
10	The opening of the parabola x^2= 16y is to _____ of the x-axis:	A. Left B. Upward C. Right D. Downward
11	The focus of the parabola x2=-4ay is:	A. (-a , 0) B. (0, a) C. (0, -a) D. (a, 0)
12	Question Image	A. 4a B. 2a C. 4b D. 2b
13	If the cone is cut by a plane perpendicular to the axis of the cone, then the section is a / an:	A. Parabola B. Circular cone C. Ellipse D. Circle
14	The graph of the parabola $x^2 = -4ay$ is symmetric about:	A. x-axis B. major axis C. y-axis D. minor axis
15	The radius of circle $x^2 + y^2 + 2gx + 2fy + c = 0$ is:	
16	the focal chord perpendicular to the axis of the parabola is called _____ of the parabola:	A. Directrix B. Latus rectum C. Focus D. Focal chord
		A. ICPL < r

17	If r is the radius of any circle and C its center, then any point $P(x_1, y_1)$ lies on the circle only if:	A. |CP| < r B. |CP| > r C. |CP| = r D. None of these
18	One of the angles of a triangle inscribed in a circle is of 40°. If one of its' the diameter, the other angles have the measures:	A. 30°, 110° B. 40°, 100° C. 50°, 90° D. 20°, 120°
19	The focus of the parabola $y^2=4ax$ is:	A. (-a , 0) B. (0, a) C. (0, -a) D. (a, 0)
20	The axis of the parabola $x^2 = -4ay$ is:	A. x = a B. x = 0 C. y = a D. y = 0
21	The parabola $y^2 = 4ax$ lies in quadrants:	A. I and II B. III and IV C. II and III D. I and IV
22	A line segment joining two distinct points on a parabola is called a _____ of the parabola:	A. Chord B. Vertex C. Focus D. Directrix
23	The condition for the line $y = mx + c$ to be a tangent to the circle $x^2 + y^2 = a^2$ is c = _____:	
24	The equi. of latus-rectum of the parabola $y^2 = -4ax$ is:	A. x = a B. x = -a C. y = a D. y = -a
25	Length of tangent from (a, 0) to the circle $x^2 + y^2 + 2gx + 2fy + c = 0$ is:	B. c C. 2g + 2f -c D. None
26	The center of circle $x^2 + y^2 + 2gx + 2fy + c = 0$ is:	A. (-g, -f) B. (-f, -g) C. (0, 0) D. (g, f)
27	The fixed point of the conic is called:	A. Directrix B. Vertex C. Focus D. None of these
28	If the radius of a circle is zero, then the circle is called a / an:	A. Circle B. Circular cone C. Ellipse D. Point circle
29	Two imaginary tangents can be drawn to a circle from any point $P(x_1, y_1)$ _____ the circle:	A. Inside B. On C. Outside D. None of these
30	A line segment having both the end-points on a circle and not passing through the center is called a:	A. A chord B. A secant C. A diameter D. None of these
31	The directrix of the parabola $y^2 = 4ax$ is:	A. x = a B. x = -a C. y = a D. y = - a
32	The point where the axis meets the parabola is called _____ of the parabola:	A. Directrix B. Vertex C. Focus D. Eccentricity
33	The opening of the parabola $y^2 = -4ax$ is to the left of the:	A. x-axis B. x = 1 C. y-axis D. x = 0
34	The two parts of a right circular cones are called:	A. Nappes B. Apex of the cone C. Generator D. Vertex
		A. 2 B. 1

35	Length of tangent from (0,1) to $x^2 + y^2 + 6x - 3y + 3 = 0$	C. 4 D. 3
36	If the cutting plane is parallel to the axis of the cone and intersects both of its nappes, then the section a / an:	A. Parabola B. Hyperbola C. Ellipse D. None of these
37	The directrix of the parabola $x^2 = -4ay$ is:	A. x = a B. x = -a C. y = a D. y = -a
38	The vertex of parabola $(x - 1)^2 = 8 (y + 2)$ is:	A. (1, -2) B. (0, 1) C. (-1, -2) D. (1, 2)
39	The number e denotes the _____ of the conic:	A. Directrix B. Vertex C. Focus D. Eccentricity
40	The graph of the parabola $y^2 = -4ax$ lies in quadrants:	A. I and II B. III and IV C. II and III D. I and III
41	Question Image	
42	Equation of axis of the parabola $x^2 = 4ay$ is:	A. x = 0 B. x = a C. y = 0 D. y = a
43	The vertex of the parabola $x^2 = -4ay$ is:	A. (a, 0) B. (0, 0) C. (0, -a) D. (0, a)
44	If the equation of the parabola is $y^2 = - 4ax$, then opening of the parabola is to the _____ of the y-axis:	A. Left B. Upward C. Right D. Downward
45	The graph of the parabola $y^2 = -4ax$ is symmetric about:	A. x-axis B. major axis C. y-axis D. minor axis
46	A line through a point say P perpendicular to the tangent to the curve at P is called:	A. Straight line B. Tangent line C. Normal line D. None of these
47	Two arcs of two different circles are congruent if:	A. The circles are congruent B. The corresponding central angles are congruent C. Both a and b D. None of the above
48	Question Image	B. 0 C. 4 D. 7
49	Point p (-5, 6) lies ..... the circle $x^2 + y^2 + 4x - 6y - 12 = 0$	A. Outside B. Inside C. On D. None of these
50	If r is the radius of any circle and C its center, then any point $P(x_1, y_1)$ lies outside the circle only if:	A. |CP| < r B. |CP| = r C. |CP| > r D. None of these
51	The equ. of directrix of the parabola $y^2 = -4ax$ is:	A. x = a B. x = - a C. y = a D. y = -a
52	The focus of the parabola $x^2 = 4ay$:	A. (0, a) B. (-a , 0) C. (0, -a) D. (a, 0)
53	The axis of the parabola $y^2 = 4ax$ is:	A. x = 0 B. x = a C. y = 0

		D. y = a
54	Two circles of radius 3 cm and 4 cm touch each other externally. The distance between their centers is:	A. 1 cm B. 7cm C. 4cm D. 5cm
55	An angle in a semi-circle is:	A. 0° B. 90° C. 180° D. 60°
56	A line that touches the curve without cutting through it is called:	A. Straight line B. Tangent line C. Normal line D. Vertical line
57	The conic is an ellipse, if:	A. e = 1 B. e > 1 C. 0 < e < 1 D. e = 0
58	The vertex of the parabola $x^2 = 4ay$ is:	A. (-a, 0) B. (0, a) C. (0, -a) D. (0, 0)
59	The graph of the the parabola $x^2 = 4ay$ lies in quadrant:	A. I and II B. III and IV C. II and III D. I and III
60	A chord containing the center of the circle is called _____ of the circle:	A. Diameter B. Chord C. Radius D. None of these
61	If the equation of the parabola $x^2 = 4ay$, then opening of the parabola is upward of the:	A. x-axis B. y-axis C. Major axis D. Minor axis
62	Two real and distinct tangents can be drawn to a circle from any point $P(x_1, y_1)$ _____ the circle:	A. Inside B. On C. Outside D. None of these
63	The graph of the parabola $y^2 = -4ax$ is symmetric about:	A. x-axis B. y = x C. y-axis D. None of these
64	The axis of the parabola $y^2 = -4ax$ is:	A. x = a B. x = 0 C. y = a D. y = 0
65	The length of the latus rectum of the parabola $y^2 = 4ax$ is:	A. a B. 4a C. 2a D. None of these
66	A circle is of radius 5 cm, the distance of a chord 8 cm long from its center is:	A. 4 cm B. 3cm C. 2.5cm D. 3.4cm
67	The set of all points in the plane that are equally distant from a fixed point is called a / an:	A. Circle B. Circular cone C. Ellipse D. Point circle
68	If the focus lies on the x-axis with coordinates F(a, 0) and directrix of the parabola is = - a then the equation of parabola is:	A. x² = 4ay B. y²= 4ax C. -x²= 4ay D. -y²= 4ax
69	Point (5, 6) lies ..... the circle $x^2 + y^2 = 81$:	A. Outside B. Inside C. On D. None of these
70	The radius of point circle is:	A. 0 B. (0, 0) C. r D. 1
71	Measure of the central angle of a minor arc is ____ the measure of the angle subtended in the corresponding major arc	A. Equal B. Double C. Not equal to

	the corresponding major arc.	C. Not equal to D. Triple
72	The opening of the parabola $x^2 = 4ay$ is upward of the:	A. x -axis B. y = c C. y - axis D. x = y
73	In equation of circle, coefficient of each of x^2 and y^2 are:	A. Not equal B. Opposite in signs C. Equal D. None of these
74	Question Image	A. Ellipse B. Parabola C. Hyperbola D. Circle
75	The number e denotes the _____ of the conic:	A. Directrix B. Vertex C. Focus D. Eccentricity
76	The curves obtained by cutting a _____ double right circular cone by a _____ are called conics:	A. Straight line B. Plane C. Curve D. None of these
77	A chord passing through the focus of a parabola is called a _____ of the parabola:	A. Directrix B. Latus rectum C. Focus D. Focal chord
78	If r is the radius of the circle and its center is at origin, then equation of circle is:	A. x² + y² = a² B. x² + y² = r² C. x² - y² = a² D. x² - y² = r²
79	The opening of the parabola $y^2 = 4ax$ is to the _____ of the:	A. Left B. Upward C. Right D. Downward
80	The directrix of the parabola $x^2 = 4ay$ is:	A. x = a B. x = -a C. y = a D. y = -a
81	Question Image	A. x = 0 B. y = -a C. y = 0 D. y = -a
82	The point of a parabola which is closest to the focus in the:	A. Directrix B. Vertex C. Focus D. Chord
83	The focus of the parabola $y^2=-4ax$ is:	A. (-a , 0) B. (0, a) C. (0, -a) D. (a, 0)
84	The ratio between the measure of the radial segment and the diameter of a circle is:	A. 2 : 1 B. 4 : 3 C. 1 : 2
85	The distance between the center of a circle and any point of the circle is called:	A. Tangents B. Secant C. Diameter D. Radius
86	If the focus lies on the y - axis with coordinates F(0, a) and directrix of the parabola is y = -a, then the equation of parabola is:	A. x² = 4ay B. -x²= 4ay C. -y²= 4ax D. y²= 4ax
87	In the case of translation of axes which formula is true:	A. x = X - h B. x = X + h C. x + X = h D. None
88	The equation of the latus-rectum of the parabola $y^2 = 4ax$ is:	A. x = a B. x = -a C. y = a

		D. y = -a
89	In the case of rotation of axes which formula is true:	
90	A line perpendicular to a radial chord of a circle at the end-point (which lies on the circle) is a:	A. Secant B. Diameter C. Chord D. Tangent
91	If a circle and a line intersect in two points, then the line is called:	A. A chord B. A secant C. A diameter D. None of these
92	$y^2 = 4ax$, is the standard equation of the:	A. Ellipse B. Parabola C. Hyperbola D. None of these
93	If the cutting plane is slightly tillted and cuts only one nappe of the cone, then the section is a / an:	A. Ellipse B. Circular cone C. Circle D. Point circle
94	The vertex of the parabola $y^2 = 4ax$ is:	A. (-a, 0) B. (a, 0) C. (0, -a) D. (0, 0)
95	The graph of the parabola $x^2 = -4ay$ lies in quadrants:	A. I and II B. III and IV C. II and III D. I and III
96	A line segment whose end points lie on the circle is called a _____ of the circle.	A. Radius B. Chord C. Diameter D. None of these
97	If the equation of the parabola is $x^2 = 4ay$, then opening of the parabola is to _____ of the x-axis:	A. Left B. Upward C. Right D. Downward
98	The center of circle $(x+3)^2 + (y-2)^2 = 16$ equals:	A. (-3, 2) B. (3, -2) C. (3, 2) D. (-3, -2)
99	The vertex of the parabola $y^2 = -4ax$ is:	A. (-a, 0) B. (a, 0) C. (0, -a) D. (0, 0)
100	Question Image	A. a B. 2b C. b D. 2a