


FSC Part 2 Mathematics Chapter 6 Online Test


Sr	Questions	Answers Choice
1	The vertex of the parabola $x^2 = -4ay$ is:	A. (a, 0) B. (0, 0) C. (0, -a) D. (0, a)
2	Question Image	A. Ellipse B. Parabola C. Hyperbola D. Circle
3	The parabola $y^2 = 4ax$ lies in quadrants:	A. I and II B. III and IV C. II and III D. I and IV
4	The opening of the parabola $y^2 = 4ax$ is to the _____ of the:	A. Left B. Upward C. Right D. Downward
5	The graph of the parabola $y^2 = -4ax$ is symmetric about:	A. x-axis B. major axis C. y-axis D. minor axis
6	A line that touches the curve without cutting through it is called:	A. Straight line B. Tangent line C. Normal line D. Vertical line
7	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
8	The center of circle $(x+3)^2 + (y-2)^2 = 16$ equals:	A. (-3, 2) B. (3, -2) C. (3, 2) D. (-3, -2)
9	The length of the latus rectum of the parabola $y^2 = 4ax$ is:	A. a B. 4a C. 2a D. None of these
10	Question Image	
11	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
12	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
13	The focus of the parabola $x^2 = 4ay$:	A. (0, a) B. (-a, 0) C. (0, -a) D. (a, 0)
14	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
15	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
16	Question Image	A. a B. 2b C. b D. -b

17	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. $30^\circ, 110^\circ$ B. $40^\circ, 100^\circ$ C. $50^\circ, 90^\circ$ D. $20^\circ, 120^\circ$
18	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
19	The vertex of the parabola $y^2 = -4ax$ is:	A. $(-a, 0)$ B. $(a, 0)$ C. $(0, -a)$ D. $(0, 0)$
20	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
21	Equation of axis of the parabola $x^2 = 4ay$ is:	A. $x = 0$ B. $x = a$ C. $y = 0$ D. $y = a$
22	The conic is a parabola, if:	A. $e = 1$ B. $e > 1$ C. $0 < e < 1$ D. $e = 0$
23	The axis of the parabola $x^2 = -4ay$ is:	A. $x = a$ B. $x = 0$ C. $y = a$ D. $y = 0$
24	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
25	Perpendicular dropped from the center of a circle on a chord _____ the chord:	A. Normal B. Bisects C. Equal to D. None of these
26	The fixed point of the conic is called:	A. Directrix B. Vertex C. Focus D. None of these
27	The directrix of the parabola $x^2 = 4ay$ is:	A. $x = a$ B. $x = -a$ C. $y = a$ D. $y = -a$
28	The axis of the parabola $x^2 = 4ay$ is:	A. $x = 0$ B. $x = -a$ C. $y = 0$ D. $y = -a$
29	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
30	The opening of the parabola $y^2 = -4ax$ is to the left of the:	A. x-axis B. $x = 1$ C. y-axis D. $x = 0$
31	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
32	The number e denotes the _____ of the conic:	A. Directrix B. Vertex C. Focus D. Eccentricity
33	Question Image	A. $4a$ B. $2a$ C. $4b$ D. $2b$
34	If r is the radius of any circle and C its center, then any point $P(x_1, y_1)$ lies outside the circle	A. $ CP < r$ B. $ CP = r$

34	only if:	C. $ CP \geq r$ D. None of these
35	The equi. of latus-rectum of the parabola $y^2 = -4ax$ is:	A. $x = a$ B. $x = -a$ C. $y = a$ D. $y = -a$
36	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
37	A chord containing the center of the circle is called _____ of the circle:	A. Diameter B. Chord C. Radius D. None of these
38	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
39	An angle in a semi-circle is:	A. 0° B. 90° C. 180° D. 60°
40	The vertex of the parabola $y^2 = 4ax$ is:	A. $(-a, 0)$ B. $(a, 0)$ C. $(0, -a)$ D. $(0, 0)$
41	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
42	The vertex of the parabola $x^2 = 4ay$ is:	A. $(-a, 0)$ B. $(0, a)$ C. $(0, -a)$ D. $(0, 0)$
43	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
44	$y^2 = 4ax$, is the standard equation of the:	A. Ellipse B. Parabola C. Hyperbola D. None of these
45	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
46		A. Circle B. Parabola C. Hyperbola D. Ellipse
47	The vertex of parabola $(x - 1)^2 = 8(y + 2)$ is:	A. $(1, -2)$ B. $(0, 1)$ C. $(-1, -2)$ D. $(1, 2)$
48	The two parts of a right circular cones are called:	A. Nappes B. Apex of the cone C. Generator D. Vertex
49	The axis of the parabola $y^2 = -4ax$ is:	A. $x = a$ B. $x = 0$ C. $y = a$ D. $y = 0$
50	The conic is an ellipse, if:	A. $e = 1$ B. $e > 1$ C. $0 < e < 1$ D. $e = 0$
51	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

A. $x = 0$

52	Question Image	B. $y = -a$ C. $y = 0$ D. $y = a$
53	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
54	The focus of the parabola $x^2 = -4ay$ is:	A. $(-a, 0)$ B. $(0, a)$ C. $(0, -a)$ D. $(a, 0)$
55	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
56	The graph of the parabola $y^2 = -4ax$ is symmetric about:	A. x-axis B. $y = x$ C. y-axis D. None of these
57	The focus of the parabola $y^2 = -4ax$ is:	A. $(-a, 0)$ B. $(0, a)$ C. $(0, -a)$ D. $(a, 0)$
58	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
59	The radius of circle $x^2 + y^2 + 2gx + 2fy + c = 0$ is:	
60	The graph of the parabola $x^2 = 4ay$ lies in quadrant:	A. I and II B. III and IV C. II and III D. I and III
61	If the cutting plane is slightly tilted and cuts only one nappe of the cone, then the section is a / an:	A. Ellipse B. Circular cone C. Circle D. Point circle
62	If r is the radius of the circle and its center is at origin, then equation of circle is:	A. $x^2 + y^2 = a^2$ B. $x^2 + y^2 = r^2$ C. $x^2 + y^2 = a^2$ D. $x^2 + y^2 = r^2$
63	A line segment joining two distinct points on a parabola is called a _____ of the parabola:	A. Chord B. Vertex C. Focus D. Directrix
64	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
65	The equation $x^2 + y^2 + 2x + 3y = 10$ represents a:	A. A pair of lines B. Circle C. Ellipse D. Hyperbola
66	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
67	The radius of circle $x^2 + y^2 + ax + by + c = 0$ is:	D. None
68	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
69	The focus of the parabola $y^2 = 4ax$ is:	A. $(-a, 0)$ B. $(0, a)$ C. $(0, -a)$ D. $(a, 0)$

70	The point of a parabola which is closest to the focus is the:	A. Directrix B. Vertex C. Focus D. Chord
71	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
72	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
73	The opening of the parabola $x^2 = 16y$ is to _____ of the x-axis:	A. Left B. Upward C. Right D. Downward
74	The radius of point circle is:	A. 0 B. (0, 0) C. r D. 1
75	The condition for the line $y = mx + c$ to be a tangent to the circle $x^2 + y^2 = a^2$ is $c =$ _____:	
76	Length of tangent from (0,1) to $x^2 + y^2 + 6x - 3y + 3 = 0$	A. 2 B. 1 C. 4 D. 3
77		B. 0 C. 4 D. 7
78	The distance between the center of a circle and any point of the circle is called:	A. Tangents B. Secant C. Diameter D. Radius
79	In the case of rotation of axes which formula is true:	
80	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
81	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
82	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
83	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)
84	The directrix of the parabola $y^2 = 4ax$ is:	A. $x = a$ B. $x = -a$ C. $y = a$ D. $y = -a$
85	Point (5, 6) lies the circle $x^2 + y^2 = 81$:	A. Outside B. Inside C. On D. None of these
86	The axis of the parabola $y^2 = 4ax$ is:	A. $x = 0$ B. $x = a$ C. $y = 0$ D. $y = a$
87	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. $x^2 = 4ay$ B. $-x^2 = 4ay$ C. $-y^2 = 4ax$ D. $y^2 = 4ax$
88	The number e denotes the _____ of the conic:	A. Directrix B. Vertex C. Focus D. Eccentricity

89	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. $(h, -k)$
90	If the equation of the parabola is $y^2 = 4ax$, then opening of the parabola is to the right of the:	A. x-axis B. $y = x$ C. y-axis D. $x + y = 0$
91	The point where the axis meets the parabola is called _____ of the parabola:	A. Directrix B. Vertex C. Focus D. Eccentricity
92	The equation of the latus-rectum of the parabola $y^2 = 4ax$ is:	A. $x = a$ B. $x = -a$ C. $y = a$ D. $y = -a$
93	The graph of the parabola $x^2 = -4ay$ is symmetric about:	A. x-axis B. major axis C. y-axis D. minor axis
94	The opening of the parabola $x^2 = 4ay$ is upward of the:	A. x-axis B. $y = c$ C. y-axis D. $x = y$
95	The directrix of the parabola $x^2 = -4ay$ is:	A. $x = a$ B. $x = -a$ C. $y = a$ D. $y = -a$
96	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
97	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
98	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 D. Triple
99	If the focus lies on the x-axis with coordinates $F(a, 0)$ and directrix of the parabola is $x = -a$ then the equation of parabola is:	A. $x^2 = 4ay$ B. $y^2 = 4ax$ C. $x^2 = 4ay$ D. $y^2 = 4ax$
100	The equ. of directrix of the parabola $y^2 = -4ax$ is:	A. $x = a$ B. $x = -a$ C. $y = a$ D. $y = -a$