Co-ordinate Geometry

1. Reflection of (-4,3) on X-axis is …..

   a. (4,-3)

   b. (-4,-3)

   c. (4,3)

   d. None of these

2.The slope & intercept of x-y+1=0 is…

a)1,1

b)1,-1

c)-1,1

d)-1,-1

3.The equation $ax^2+2hxy+by^2+2gx+2fy+c=0$ represents as circle if …..

a)h=0 and a≠b

b)h≠0 and a=b

c)h≠0 and a≠b

d)h=0 and a=b

4.The number of common tangents to the circles $x^2+y^2=4$ & $x^2+y^2-6x-8y=24$ is….

a)2

b)1

c)3

d)None of these

5)The lines 2x-3y=5 & 3x-4y=7 are diameters of the circles having area as 154sq.Units, then the equation of the circle is ….

a) $x^2+y^2-2x-2y+47=0$

b) $x^2+y^2+2x-2y-47=0$

c) $x^2+y^2-2x+2y-47=0$

d)None of these

6.The intercept on the line y=x by the circle $x^2+y^2-4x=0$ is A&B. Find the equation of the circle on AB as diameter.

a)$x^2+y^2-2x-2y=0$

b)$x^2+y^2+2x+2y=0$

c)$x^2+y^2+2x-2y=0$

d)$x^2+y^2-2x+2y=0$

7.The equation of the circle is $x^2+y^2+4x-4y+4=0$ which makes equal intercepts on the +ve co-ordinate axes.

Then the equation of tangent is…

a)$x-y+2\sqrt{2}=0$

b)$x-y-2\sqrt{2}=0$

c) $x+y-2\sqrt{2}=0$

d)None of these,

8.If $x+y=p$ is normal is $y^2 = 16x$ then p is .....

a)10

b)4

c)3

d)12

9.If the parabola $y=x^2-5x+6$ at the points (2,0)&(3,0). Then the angle between the tangents to the parabola is….

a) π/2

b) π/4

c) π

d)None of these

10.If e=1/2 & one of the directrix is x=4, then the equation of the ellipse is ….

a) $x^2/9+y^2/4 =1$

b) $x^2/8+y^2/9 =1$

c) $x^2/4+y^2/3 =1$

d)None of these

11.The hypothesis $x^2/\cos^2\alpha - y^2/\sin^2\alpha = 1$ then abscissa of foci…., when α varies,

a)(1,0)

b)(-1,0)

c)(0,0)

d)(±1,0)

12.The locus of a point p(α,ß) moving condition that line $y=\alpha x+ß$ is a tangent to the hyperbola $(x^2/a^2)-(y^2/b^2)=1$is a….

a)Hyperbola

b)Parabola

c)Ellipse

d) None of these

13.If a line makes an angle of with the +ve direction to the x-axis and y-axis, then the angle that line makes with the +ve direction to the z-axis is…

a) $\pi/3$

b) $\pi/2$

c) $\pi/4$

d) $\pi/6$,

14. A focus of an ellipse is at the origin, the directrix is the line x+4 & the eccentricity is ½. Then the length of the semi-major axis is….

a)8/3

b)2/3

c)4/3

d)5/3,

15.The point diametrically opposite to the point p(α, ß) on the circle $x^2+y^2+2x+4y-3=0$ is….

a)(-3,4)

b)(3,-4)

c)(-3,-4)

d)(3,4)

16.Length of the chord of the circle $x^2+y^2-6x+4y+5=0$ is intercepted by x-axis is…

a)4units

b)2 units

c)0

d)none of these

17.If the vertex of the parabola $Y=x^2-8x+c$ lies on x-axis then the value of c is….

a)16

b)4

c)-16

d) None of these

18.If $x+y=k$ is normal to $y^2=12x$, then k is….

a)3

b)-3

c)9

d)none of these

19.Equation of $x^2+y^2-4x+6y+8=0$ from (-5,-4)is…

a)3x+y+14=0

b)x+2y-3=0

c)2x-2y+6=0

d)None of these

20.The given equation of the circle is $x^2+y^2-4x-3y+4=0$ Then it touches…

a)x-axis

b)y-axis

c)co-ordinate axes

d)none of these

21.If y= x+c may be tangent to the parabola $y^2=12x$ then the co-ordinates of the point of contact is…..

a)(1,2)

b)(3,4)

c)(3,6)

d)None of these

22.If the latus rectum is 4 & distance between foci is $2\sqrt{15}$.Then the equation of ellipse is….

(The standard form of the ellipse is $x^2/a^2 + y^2/b^2 = 1 a>b$)

a) $x^2/25 + y^2/10 = 1$ b) $x^2/5 + y^2/10 = 1$

c) $x^2/10 + y^2/25 = 1$ d) None of these

23.The distance between foci is 8 & distance between directrices is 9/2, the equation of hyperbola is….

a) $x^2/36+y^2/45=1$

b) $x^2/9-y^2/7=1$

c) $x^2/45-y^2/36=1$

d) None of these

24. The eccentricity of a hyperbola is $\sqrt{3}$ then eccentricity of its conjugate is…..

a)$2/\sqrt{3}$

b)$\sqrt{3}/\sqrt{2}$

c) $\sqrt{3}/2$

d)$3/\sqrt{2}$

25.In a standard equation of a hyperbola with the centre of the origin SS'=16 & e=$\sqrt{2}$ then the equation is….

a) $x^2-y^2 = 32$

b) $x^2-y^2 = 16$

c) $y^2-x^2 = 16$

d) $y^2-x^2 = 32$