

Analytical Geometry-2
Model Exam Question paper - 2

11th Standard

Business Maths

Reg.No. :

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I. Answer all the questions

Time : 00:45:00 Hrs

Total Marks : 35

Part-A

7 x 1 = 7

- 1) Slope of the line $\perp r$ to $ax+by+c=0$ is
(a) $-a/b$ (b) $-b/a$ (c) b/a (d) a/b
- 2) When $ax+3y+5=0$ and $2x+6y+7=0$ are parallel then the value of 'a' is
(a) 2 (b) -2 (c) 1 (d) 6
- 3) The value of 'a' for which $2x+3y-7=0$ and $3x+ay+5=0$ are $\perp r$ is
(a) 2 (b) -2 (c) 3 (d) -3
- 4) The centre of the circle $x^2+y^2+6y-9=0$ is
(a) (0,3) (b) (0,-3) (c) (3,0) (d) (-3,0)
- 5) The equation of the circle with centre at (0,0) and radius 3 units is
(a) $x^2+y^2=3$ (b) $x^2+y^2=9$ (c) $x^2+y^2=\sqrt{3}$ (d) $x^2+y^2=\sqrt[3]{3}$
- 6) The length of the diameter of a circle with centre (1,2) and passing through the point
(a) 5 (b) $\sqrt{45}$ (c) 10 (d) $\sqrt{50}$
- 7) If (1,-3) is the centre of the circle $x^2+y^2+ax+by+9=0$, its radius is
(a) $\sqrt{10}$ (b) 1 (c) 5 (d) $\sqrt{19}$

Part-B

6 x 2 = 12

- 8) Find the equation of a line which passes through the point (-2,3) and makes an angle of 30° with the positive direction of x-axis.
- 9) Find the equation of the circle with centre at (-4,-2) and radius 6 units.
- 10) Find the equation of the circle passing through (-2,0) and having its centre at (2,3)
- 11) Find the equation of tangent to the circle $x^2+y^2=10$ at (1,3)
- 12) Find the length of the tangent from (2,-3) to the circle $x^2+y^2-8x-9y+12=0$
- 13) Find the length of the tangent from the point (-2,3) to the circle $2x^2+2y^2=3$

Part-C

2 x 3 = 6

- 14) Find the equation of the line which has perpendicular distance 4 units from the origin and the inclination of perpendicular with +ve direction of x-axis is 135°
- 15) Show that the straight line $4x+3y=10$, $3x-4y=-5$ and $5x+y=7$ are concurrent.

Part-D

2 x 5 = 10

- 16) Find the equation of the bisectors of the angle between $3x+4y+3=0$ and $4x+3y+1=0$.
- 17) Find the equation of the straight line which passes through (2,2) and have intercepts whose sum is 9.
