Question 1

Identify the curve:

$$x^2 + 2y^2 + 6x - 4y + 7 = 0.$$

Give the answer by selecting the best option.

A. Straight line

B. Ellipse

C. Circle

D. Parabola

Question 2

Identify the curve:

$$6y^2 + x - 36y + 55 = 0.$$

Give the answer by selecting the best option.

A. Ellipse

B. Hyperbola

C. Circle

D. Parabola

Question 3

Identify the curve:

$$25x^2 + 4y^2 + 50x - 16y = 0.$$

Give the answer by selecting the best option.

A. Ellipse
B. Hyperbola
C. Circle
D. Parabola

Question 4

Identify the curve:

$$x^2 + y^2 + 6x - 4y + 7 = 0.$$

Give the answer by selecting the best option.

A. Ellipse

B. Hyperbola

C. Single point

D. Circle

Question 5

Identify the curve:

$$xy = 1.$$

Give the answer by selecting the best option.

A. Straight line

B. Rectangular hyperbola

C. Hyperbola

D. Circle

Question 6

Identify the curve:

$$x^2 + y^2 + 2x = -1.$$

Give the answer by selecting the best option.

A. Ellipse

B. Hyperbola

C. Single point

D. Circle

Question 7

Identify the curve:

$$4x^2 + y^2 - 4y = 0.$$

Give the answer by selecting the best option.

A. Ellipse

B. Single point

C. Circle

D. Parabola

Question 8

Identify the curve:

$$x^2 + 2x - y = 3.$$

Give the answer by selecting the best option.

A. Ellipse

B. Hyperbola

C. Single point

D. Parabola

Question 9

Identify the curve:

$$x^2 - 2y^2 + 3x + 4y = 2.$$

Give the answer by selecting the best option.

A. Ellipse

B. Rectangular hyperbola

C. Hyperbola

D. Straight lines

Question 10

Identify the curve:

$$9x^2 + 4y^2 - 18x + 8y = 23.$$

Give the answer by selecting the best option.

A. Ellipse

B. Hyperbola

C. Single point

D. Circle

Question 11

Identify the curve:

$$9x^2 + 4y^2 - 18x + 8y = -13.$$

Give the answer by selecting the best option.

A. Ellipse

B. Hyperbola

C. Single point

D. Circle

Question 12

Identify the curve:

$$y^2 - 4x^2 - 2y + 16x = 31.$$

Give the answer by selecting the best option.

A. Ellipse

B. Rectangular hyperbola

C. Hyperbola

D. Straight lines

Question 13

Identify the surface:

$$x = 3.$$

Give the answer by selecting the best option.

A. Circular Paraboloid

B. Plane

C. Parabolic Cylinder

D. Hyperbolic Cylinder

Question 14

Identify the surface:

$$4y^2 + z^2 - x - 16y - 4z + 20 = 0.$$

Give the answer by selecting the best option.

A. Plane

B. Hyperbolic Paraboloid

C. Elliptic Cylinder

D. Elliptic Paraboloid

Question 15

Identify the surface:

$$4x^2 - y + 2z^2 = 0.$$

Give the answer by selecting the best option.

A. Circular Paraboloid

B. Hyperbolic Cylinder

C. Elliptic Paraboloid

D. Hyperbolic Paraboloid

Question 16

Identify the surface:

$$y^2 = x^2 + 4z^2 + 4.$$

Give the answer by selecting the best option.

A. Ellipsoid

B. Cone

C. Hyperboloid of One Sheet

D. Hyperboloid of Two Sheets

Question 17

Identify the surface:

$$9x^2 - y^2 + z^2 = 0.$$

Give the answer by selecting the best option.

A. Circular Cylinder

B. Cone

C. Hyperboloid of One Sheet

D. Hyperboloid of Two Sheets

Question 18

Identify the surface:

$$y = z^2.$$

Give the answer by selecting the best option.

A. Parabolic Cylinder

B. Hyperbolic Cylinder

C. Elliptic Cylinder

D. Hyperbolic Paraboloid

Question 19

Identify the surface:

$$4x - y + 2z = 4.$$

Give the answer by selecting the best option.

A. Plane

B. Hyperbolic Cylinder

C. Cone

D. Hyperboloid of One Sheet

Question 20

Identify the surface:

$$y^2 + z^2 = 1 + x^2.$$

Give the answer by selecting the best option.

A. Cone

B. Hyperboloid of One Sheet

C. Hyperboloid of Two Sheets

D. Elliptic Paraboloid

Question 21

Identify the surface:

$$4x^2 + 4y^2 - 8y + z^2 = 0.$$

Give the answer by selecting the best option.

A. Circular Paraboloid

B. Plane

C. Ellipsoid

D. Elliptic Paraboloid

Question 22

Identify the surface:

$$x = y^2 + z^2 - 2y - 4z + 5.$$

Give the answer by selecting the best option.

A. Circular Paraboloid

B. Parabolic Cylinder

C. Ellipsoid

D. Hyperbolic Paraboloid

Question 23

Identify the surface:

$$x^2 - y^2 - z = 0.$$

Give the answer by selecting the best option.

A. Plane

B. Parabolic Cylinder

C. Hyperbolic Cylinder

D. Hyperbolic Paraboloid

Question 24

Identify the surface:

$$x^2 - 6x + 4y^2 - z = 0.$$

Give the answer by selecting the best option.

A. Elliptic Cylinder

B. Cone

C. Elliptic Paraboloid

D. Hyperbolic Paraboloid

Question 25

Identify the surface:

$$x^2 - y^2 + z^2 - 2x + 2y + 4z + 2 = 0.$$

Give the answer by selecting the best option.

A. Cone

B. Hyperboloid of One Sheet

C. Hyperboloid of Two Sheets

D. Hyperbolic Paraboloid