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|--------------|----------------------|-----------|-----|--------|----------|
| Course Code: | GI105                | Semester: | 1 - | Total: | 60 Marks |
| Course Name: | Engineering Graphics |           |     | Time:  | 3 hrs    |

## Part-A

## MCQ

(1x5=5)

- Initial work and construction lines are drawn using pencil.
  - 3H
  - 4H
  - H
  - 2H
- The sections cut by a plane on a right circular cone are called as \_\_\_\_\_.
  - Parabolic sections
  - Hyperbolic sections
  - Conic sections
  - Elliptical sections
- The length of isometric drawing of line is 20 cm. What is the true length of it?
  - 24.53
  - 22.53
  - 23.25
  - 22
- If a right angled triangle is made to revolute about one of its perpendicular sides the solid formed is \_\_\_\_\_.
  - Tetrahedron
  - Cylinder
  - Cone
  - prism
- The solid formed by 12 equal and regular pentagons as faces is called \_\_\_\_\_.
  - dodecahedron
  - pyritohedron
  - icosahedron
  - planonic solid

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## Fill in the blanks

(1x5=5)

- When a pyramid or a cone is cut by a plane parallel to its base, thus removing the top portion, the remaining portion is called frustum.
- The fixed straight line is called as directrix and the fixed point is called as the focus.
- Eccentricity is defined as the ratio of the distance from the focus to the distance from the directrix.
- The value of the ratio of isometric length to true length is 0.815.
- When the axis of solid is perpendicular to H.P, the front view should be drawn first and top view then projected from it.

## Part-B

## Answer any five of the following questions

(4x5=20)

- What are the different positions which a solid can take with respect to the reference plane?
- Define tangent and normal at any point on the curve.
- Define ellipse and give its important practical application.
- Define isometric scale. How it is constructed?
- What is the difference between a plain scale and a diagonal scale?
- What are aligned system and unidirectional system of dimensioning?

## Part-C

## Answer any five of the following questions

(6x5=30)

- Derive the relation between true length and isometric length.
- What are the application of Cycloid and Involute curves in engineering?
- What are the different types of solid in engineering drawing?

line joining the front and top views of a point are called

20. Draw the projections of the following points

Point A which is 40 mm above HP and 55 mm in front of VP.

Point B, which is 10 mm above HP and 15 mm behind VP.

Point C, which is 25 mm below HP and 20 mm behind VP

Point D, which is 20 mm below HP and 20 mm in front of VP

21. What are the general rules of dimensioning?

22. Explain the procedure for preparing orthographic views.

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