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# DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE - OCTOBER, 2018 <br> ENGINEERING GRAPHICS 

[Time : 3 hours
(Maximum marks : 100)
[Note:-1. A2 size drawing sheet to be supplied.
2. All drawing should be in first angle projections.
3. Both sides of the drawing sheet can be used.
4. Dimensioning as per BIS.
5. Sketches accompanied.]

PART - A
(Maximum marks : 10)

1 Answer all questions in one or two sentences. Each question carries 2 marks.

1. What is reference line or $x y$ line.
2. Give the names of the conic curves having eccentricity unity and eccentricity less than unity.
3. Give the length and width of the drawing boards designated as D0, D1, D2 and D3.
4. What is the difference between oblique view and isometric view?
5. What are the uses of sectional views?

PART - B
(Maximum marks : 30)
(Answer any five of the following questions. Each questions carries 10 marks)
II Redraw the figure -1 and dimensions it as per BIS.
III Draw a parabola, if the distances of its focus from the directrix is 60 mm . Draw a tangent and normal at any point on the parabola.
IV Draw the projections of the following points in a common reference line.
(a) Point P is 12 mm above HP and 20 mm in front of VP.
(b) Point Q is 24 mm below HP and 30 mm behind VP.
(c) Point R is in HP and 32 mm behind VP.
(d) Point S is 15 mm below HP and 40 mm in front of VP.
(e) Point T is in HP and in VP .

V A line AB of length 80 mm is inclined $45^{\circ}$ to HP and $30^{\circ}$ to VP . The end A of the line is 15 mm above HP and 20 mm in front of VP. Draw its projections.

VI Draw the involute of a square of side 25 mm .
VII A hexagonal plane of side 30 mm , has its one edge parallel to VP and 16 mm in front of it. The plane is inclined $40^{\circ}$ to VP and the lowest corner is 12 mm above HP. Draw its projections.

VIII The three orthographic views of an object is shown in figure 2. Draw the isometric view.

## PART - C

(Maximum marks : 40)
(Answer any two of the following questions. Each question carries 20 marks.)
IX The isometric view of an object is shown in figure - 3. Draw its front view, top view and left side view.

X The isometric view of a lever is shown in figure - 4. Draw the full sectional elevation and plan.

XI Draw the development of the elbow shown in figure -5 .

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Figure 1


Figure 3


Figure 2


Figure 4


Figure 5

