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# SECOND SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/ TECHNOLOGY - MARCH, 2016 <br> ENGINEERING GRAPHICS 

(Common to all branches except DCP and CABM)
[Time : 3 hours
(Maximum marks : 100)
[Note :-1. Missing data if any suitably assumed.
2. Sketches to be accompanied.]

PART-A
(Maximum marks : 10)
Marks
I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. Define representative fraction of a scale.
2. Define eccentricity of conic section.
3. What is an involute?
4. Write four applications of CAD
5. What do you mean by development of surfaces?

PART-B
(Maximum marks : 50)
(Answer any five of the following questions. Each question carries 10 marks.)
II Redraw the given figure 1 and dimension as per BIS.
III Construct a regular heptagon of side 40 mm .
IV Draw a plain scale of $1 \mathrm{~cm}=5$ meters and shown on it 37 meters.
V Orthographic projection of points $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}$ and T are shown in figure 2. Read the views and state their position with respect to HP and VP.
VI Draw the projection of the line AB 100 mm long inclined at $30^{\circ}$ to HP and $45^{\circ}$ to VP. The end $A$ of the line $A B$ is 50 mm below HP and 25 mm behind VP , mark the angle made by the line with the xy plane.
VII A pentagonal lamina of 40 mm side has an edge on the HP. The surface of the plane is inclined at $45^{\circ}$ to HP and perpendicular to the VP. Draw its projections.
VIII Draw the Development of the tray shown in figure 3.

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(5 \times 10=50)
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## PART - C

(Maximum marks : 40)
(Answer any two of the following questions. Each question carries 20 marks.)
IX Figure 4 shows the pictorial view of a bearing. Draw its front view in the direction of the arrow $F$ and top view.

X The pictorial view of a lever shown in figure 5. Draw full sectional front view in the direction $F$ and top view.
XI The orthographic view of the letter H shown in figure 6. Draw its isometric projection.

