

**B. Tech Examination May-2014**

**Engineering Drawing**

**Subject Code : ME-102**

**Paper ID:A0125**

**Time : 03 Hrs.**

**Max. Marks:60**

**Note :**1. Question No. 1 is compulsory. 2. Attempt any five questions from Part - A & B selecting at least two from each part.

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1. a) Differentiate between Ist angle and third angle method of projections (**2Each**)
  - b) Write the following in single stroke freehand Gothic lettering

### **ENGINEERING DRAWING**

- c) Show the Dimension line, extension line, and arrow head with the help of a suitable sketch.
- d) Draw the isometric scale
- e) Why the projections of an object are not drawn in second and fourth quadrants.
- f) What do you understand of an auxillary vertical plane (AVP) and an auxillary inclined plane (AIP).
- g) What are the various methods of finding the true length of a straight line.
- h) Draw free hand the trace of a line when it is parallel to HP and inclined to V.P.
- i) What is meant by polyhedra and what are their types.
- j) How do we differentiate between Apparent Section and true section.

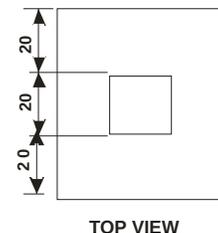
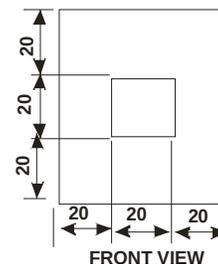
### **Part - A**

2. A straight line AB, 70 mm long has its end A in both HP & VP. The line is inclined to HP at  $45^{\circ}$  and to VP at  $30^{\circ}$ . Draw its projections.
3. A regular pentagonal lamina of 25 mm side has one side in the HP, its plane is inclined at an angle of  $30^{\circ}$  to HP and perpendicular to VP. Draw its projections.
4. A hexagonal pyramid, side of base 25 mm and axis 50 mm long is resting on an edge of its base in HP with its axis inclined at  $30^{\circ}$  to HP and parallel to VP. Draw its projections.

in HP in such a way that one of the base edge makes an angle of  $30^\circ$  with the VP. It is cut by a sectional plane parallel to HP and passing at a distance of 25 mm from the base. Draw the front view and sectional top view.

## PART - B

6. A pentagonal prism of base edge 25 mm and 50 mm long stands on its base with one of the base edge inclined at  $30^\circ$  to VP. It is cut by a sectional plane V-T inclined at  $45^\circ$  to HP which passes through a point 30 mm from the base along the axis. Develop the lateral surface of the prism. 8
7. A cylinder of 50 mm dia and height 70 mm standing on its base in HP, is penetrated by a horizontal cylinder of 35 mm dia and 80 mm long such that their axis bisect each other at right angles and are parallel to VP. Draw the curves of interpenetration in front view. 8
8. A cylindrical slab of 70 mm dia and 40 mm thick is surmounted by a cube of 35 mm edge. Draw its isometric view. 8
9. The figure shows the front view and top view of an object. Add the side view after redrawing the given views.



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