INDIAN INSTITUTE OF TECHNOLOGY PATNA
CE 111: Engineering Drawing
End Semester Examination 2015-16

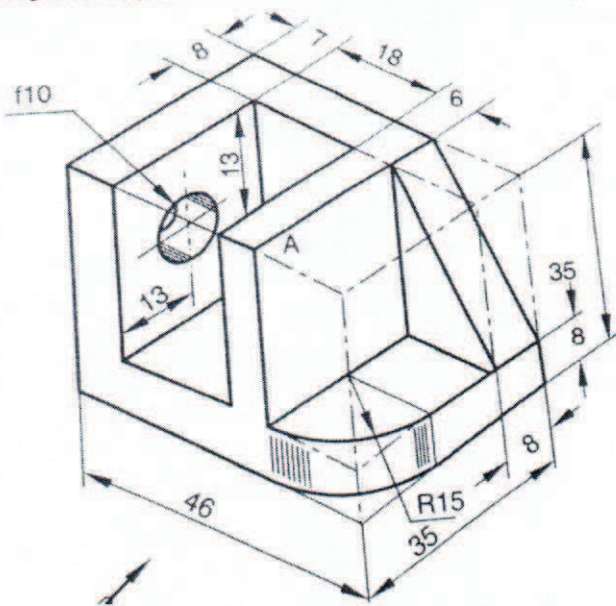**Maximum Time: 180 Minutes**   **Maximum Marks: 80**

Instructions

- Answers the questions on the provided drawing sheet itself.
- Use both side of the drawing sheet.
- Clearly mention the scale used for each answer.
- Make a standard sized title block and write your name and roll number clearly in it.
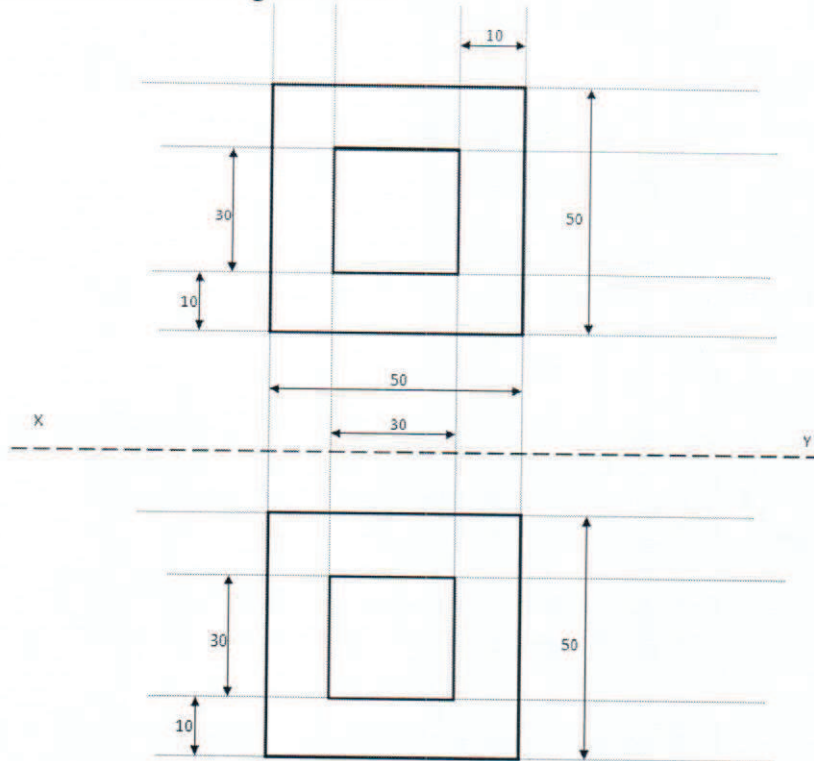
Questions

1. Draw the projection of a line segment which is in the first quadrant and the projections of the line makes an angle of 60 degree to the HP and 45 degree to the VP. Given the true length of the line is 130 mm show the plan elevation and the any side view. One end of the line segment is 20 mm above HP and 15 mm in front of VP.   **(10)**

2. Draw the projection (plan and elevation) of a cube of side 50 mm whose one vertex is on the HP and one of the body diagonal is perpendicular to the VP. Hint: Use multi step method.   **(10)**

3. Draw the projection of a heptagonal pyramid side 25mm and height 55mm kept on top of the flat surface of a sliced hemispherical dome of radius 60 mm such that the circle generated as a result of slicing exactly circumscribes the heptagonal base of the pyramid. One side of the heptagonal base of the pyramid is parallel to the VP.   **(15)**

4. Draw the orthographic projection of the object shown in the figure below in first angle projection. (Plan + Elevation + LHSV + RHSV)

                   (15)

5. For the plan (top view) and elevation (front view) given in the figure below in first angle projection draw the missing side view. **(10)**

6. Draw the isometric view using the orthographic views given in the figure below in first angle projection. **(20)**