BENGAL ENGINEERING AND SCIENCE UNIVERSITY, SHIBPUR
B. E. (MET-MIN) 1st Semester Final Examination, 2013
Subject: Engineering Drawing (DR 1201)
Full Marks 70   Time: 3hrs
Attempt FOUR questions taking ANY TWO from each half
Questions are of equal marks and two marks are kept for neatness

FIRST HALF

Q. 1. A tetrahedron of 75 mm long edges has one edge parallel to the H. P. and inclined at 45^0 to the V. P. while a face containing that edge is vertical. Draw its projections.

Q. 2. A square pyramid, base 40 mm side and axis 65 mm long, has its base on the ground and all the edges of the base are equally inclined to the V. P. It is cut by a section plane perpendicular to the V. P. and inclined at 45^0 to the H. P. and bisecting the axis. Draw its sectional top view and true shape of the section.

Q. 3. Draw the ISOMETRIC VIEW for the following figures
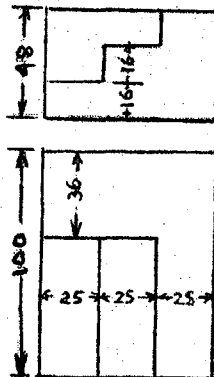
ALL DIMENSIONS ARE IN MM

SECOND Half

4. On a state road map, national highway connecting Khurda and Puri is shown by a 4 c.m. stretch. The actual straight distance between the two cities is known to be 100 km. What is the R.F. used for the map? Draw a diagonal scale for the map which will be able to measure single km. to 400 km. Draw a rectangle of 236 km. × 94 km. with the help of that scale.

5. Draw the involute of an octagon having sides of 15 mm.

6. The end A and end B of a straight line AB are 20 m.m. and 40 m.m. in front of V.P., respectively. The distance between the end projectors of the two end points are 40 mm apart when measured parallel to XY. The H.T. of the line is 5 m.m in front of V.P. Draw the projections of the straight line if the elevation is inclined at 30^0 to H.P. Determine true inclinations of the line with planes of projections. Also mark the H.T. and V.T. of the line.