

**6055**  
**BOARD DIPLOMA EXAMINATION**  
**JUNE - 2019**  
**DIPLOMA IN MECHANICAL ENGINEERING**  
**ENGINEERING DRAWING**  
**FIRST YEAR EXAMINATION**

Time: 3 Hours

Total Marks: 60

**PART - A**      (5m x 4 = 20m)

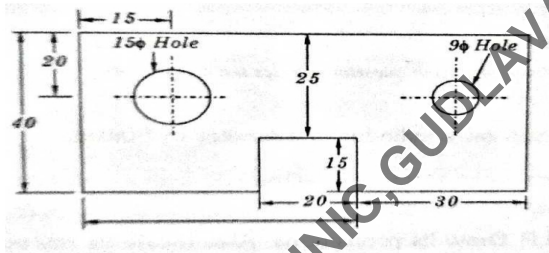
Note 1: Answer all questions and each question carries five marks

2: All dimensions are in mm

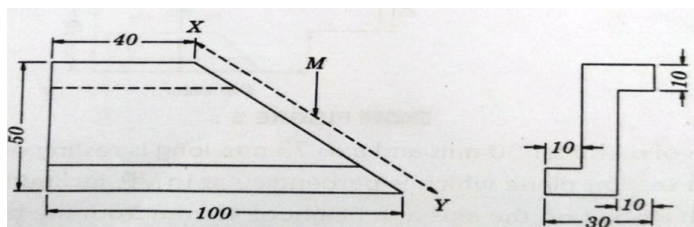
1. Print the following in single stroke capital letters in 14 mm size.,

"PERMANENT IDENTIFICATION NUMBER"

2. Redraw the following figures and dimension it by correct system of dimensioning by aligned system



3. A stone is thrown from the ground level. It reaches a height of 50 meters and falls on the ground at a distance of 100 meters from the point of projection. Draw the path of the stone. (Assume suitable scale)
4. Obtain the true shape of the section for the object shown in the Fig. 3 by an auxiliary view along the arrow direction



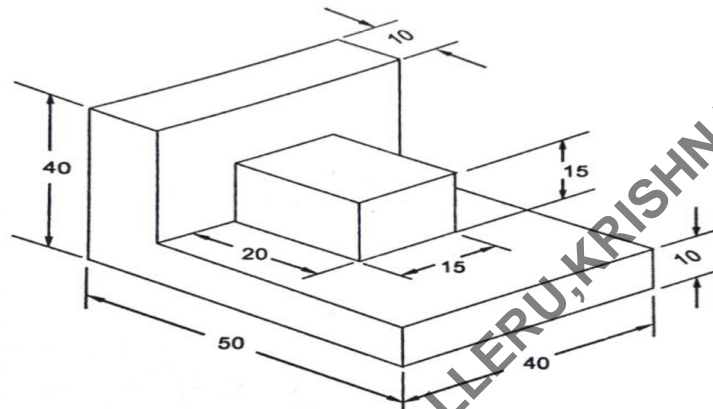
**PART - B**      (10m x 4 = 40m)

Note 1: Answer any four questions

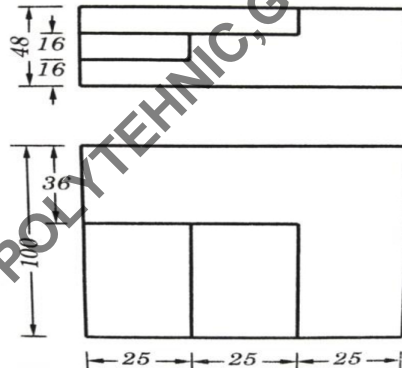
2: Each question carries ten marks

5. Draw the involute of hexagon of side 20 mm

6. Draw the projection of a regular hexagon of 20mm side having one of its sides in the H.P. its surface is making an angle of  $45^\circ$  to the H.P and perpendicular to V.P
7. A cylinder of base diameter 40mm and height 75mm standing on one of its ends. It is cut by a plane which is perpendicular to the VP and  $60^\circ$  to the HP and passing through the middle point of top face Draw the sectional top view and true shape of the section
8. Draw the front view and top view of the following figure



9. Draw an isometric view of the steps whose orthographic projections are given below:



10. A hexagonal pyramid of base side 25mm and the axis 65mm long is resting on its base in HP having one of its base sides parallel to VP. It is cut by a section plane which is perpendicular to VP, inclined at  $45^\circ$  to HP and passing through the midpoint of axis. Draw the surface development of the bottom portion of truncated pyramid