## FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA. SCHOOL OF TECHNOLOGY EDUCATION

## DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION FIRST SEMESTER 2012/2013 EXAMINATION

COURSE CODE: TCD 311

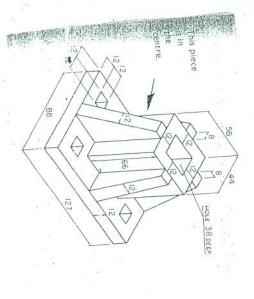
**COUSE TITLE: TECHNICAL DRAWING III** 

**CREDIT UNIT: 2** 

LEVEL: 300 LEVEL TIME ALLOWED: 2 Hours

## INSTRUCTION: ANSWER QUESTION ONE (1) AND TWO (2) OTHERS

- Q1. (a) Reproduce the Drawing in Figure 1 in isometric Drawing.
  - (b) Draw in First Angle Projection, the following views of the block.
    - (i) Front Elevation (ii) End Elevation and (iii) Plan.
- Q2. Figure 2 is a Link mechanism in which AB = CD = 150mm. CE = 65mm, EF = 75mm and AC = BD = EP = 25mm. AC rotates about A and BD rotates about B respectively. F is constrained to reciprocate along the guide XY and which is perpendicular to the common center line of A and B. AX = 40mm. Draw a full size, the locus of point P when D makes complete revolution in the direction of the arrow. Label the drawing appropriately.
- Q3. Draw the following in Figure Three (3):
  - (a) The Plan and elevation as shown in Figure Three (3);
  - (b) The plan in section using your our own letters for cutting plane and
  - (c) The development of the frustum
- Q4. (a) What is a cutting plane?
  - (b) How are Cutting planes represented on a drawing?
  - (c) Define the Following Sections:
    - (i) Scrap (ii) Off-set (iii) Part (iv) Half (v) Removed (vi)
  - (d) At what Angle are sectioning line drawn?
  - (e) By freehand sketches show the following:
    - (i) How the edge of a half sectioning line is represented on a drawing
    - (ii) Resolved section
    - (iii) A removed section
    - (iv) A thin section





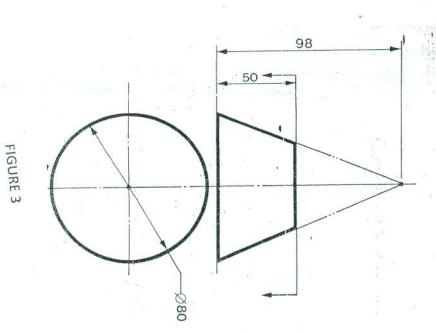


FIGURE 2