

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 $AB = CD = 150\text{mm}$. $CE = 65\text{mm}$, $EF = 75\text{mm}$ and $AC = BD = EP = 25\text{mm}$. 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. $AX = 40\text{mm}$. 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

