NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF INDUSTRIAL AND MANUFACTURING ENGINEERING

Engineering Drawing 1 TIE 1101

FIRST SEMESTER EXAMINATIONS APRIL/MAY 2009

INSTRUCTIONS

TIME: 3 hours and 15 minutes for Title Block

Answer Question 1 and any other three Questions.

All dimensions are in millimeters

Title block and margins carry 5 marks

Draw carefully using appropriate line thickness. Show all construction lines used. Note: Produce a simple Title Block in the top right-hand corner of your A3 Drawing Paper and print your Student Number, Department, Subject Name and Number. Print your Student Number Only on the rest of your answer sheets.

Question 1

Draw full size in third angle orthographic projection the following views of the Machine Part shown in Figure Q1:

- a) Sectional Front View seen along cutting plane P-P
- b) End elevation in direction of arrow T
- c) A Plan projected from view (a)

(40 marks)

Question 2

Draw the two views of a Truncated Rectangular Pyramid shown in Figure Q2 and draw the development to also include the Base and Top of the Pyramid. The top should be attached to an edge parallel to the base line. (20 marks)

Question 3

Draw and dimension the Flange shown in Figure Q3. Use the compass method for the elliptical part. Print the name below your answer.

(20 marks)

Question 4

Draw an Isometric Projection view of the Block shown in Figure Q4.Position the drawing so that corner Q becomes the lowest point. (20 marks)

Question 5

Figure Q5 shows the Front Elevation and Plan of a Truncated Pipe. Copy the two views and draw the End Elevation as seen from the left. Draw the Linear Development of the pipe as well as an Auxiliary view seen in direction of arrow S. Layout your views so that all of them will be accommodated on one side of an A3 paper. (20 marks)