



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF INDUSTRIAL AND MANUFACTURING ENGINEERING

Bachelor Of Engineering Honours Degree Industrial and Manufacturing Engineering

ENGINEERING DRAWING I

TIE 1101

First Semester Main Examination Paper

December 2014

This examination paper consists of 6 pages

Time Allowed: 3 hours and 15 minutes

Total Marks: 100

Special Requirements: A3 size Drawing sheets, A3 size Drawing Board and Tee Square

INSTRUCTIONS

1. Answer all questions in Section A and any two (2) in Section B
2. Each question in section B carries 20 marks
3. All dimensions are given in millimeters
4. Do not erase any of the construction lines used

MARK ALLOCATION

QUESTION	MARKS
1.	35
2.	25
3.	20
4.	20
5	20
TOTAL	100

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Section A

Question 1

a) Prepare a Title Block at the bottom right corner of an A3 size drawing sheet and print the following information:

Student Number, Department, Name of subject and the Course Code. Print your student number only on the rest of the answer sheets. [5]

b) An Isometric View of a Locating Bracket is shown in Figure Q1. Draw full size in First Angle Orthographic Projection the following:

- a) A Sectional Front View as seen on Cutting Plane P-P
- b) An End Elevation as seen from the left
- c) A Plan, projected from view (a) [30]

Question 2

Figure Q2 shows two views of a Sliding Block in First Angle Orthographic Projection. Draw an Isometric View of the Sliding Block so that the longer of the base dimensions is along the left horizontal axis. Do not erase any of the construction lines used. [25]

Section B

Question 3

Draw the Locking Plate whose details are shown in Figure Q3. Clearly show all the construction lines as well as mark and number the centres used. The Four Centre Method must be used to construct the elliptical part of the Plate. Do not dimension. [20]

Question 4

Draw the Surface Development of the Pipe Joint shown in Figure Q4. Position your views carefully so that the Surface Developments of both Pipe A and Pipe B fit on one side of the A3 size drawing sheet. [20]

Question 5

Figure Q5 shows details of a Tracing Pattern. Draw the Tracing Pattern and enlarge it to a scale of 7 : 5. Do not dimension. Do not erase construction lines. [20]

END OF EXAMINATION