THE OPEN UNIVERSITY OF SRI LANKA

FACULTY OF ENGINEERING TECHNOLOGY

DIPLOMA IN TECHNOLOGY – LEVEL 02

FINAL EXAMINATION 2008

MEX2230 – COMMUNICATING ENGINEERING INFORMATION

DATE : 8th APRIL 2009

TIME : 1330 HRS – 1730 HRS

DURATION : FOUR HOURS [04]

WRITE YOUR INDEX NUMBER CLEARLY ⇨

WRITE YOUR REGISTRATION NUMBER ⇨

READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE ANSWERING THE QUESTION PAPAER

INSTRUCTIONS:

1. *This question paper consists of two sections PART A (5 questions) and PART B (4 questions).*
2. ***Answer all questions**. **PART A** will carry **60** marks and **PART B 40** marks.*
3. *Spend at least two and a half (2½) hours for **PART A** and the rest for **PART B.***
4. *Answers should be written or drawn within the space provided under each question in both **PART A** and **PART B**. No additional papers should be used for any question.*
5. ***Any answers given in separate sheets other than this question paper will not be taken for evaluation**.*
6. *You may use drawing instruments (other than drawing board and T-ruler) at your discretion.*
7. *All sketches must be neatly drawn and proportional in sizes.*
8. *It is extremely important that you do not remove the question paper, or any part of the question paper, from the examination hall.*
9. *Remember to write your index number and registration number in the space provided above. Do not write your NAME.*
10. *If you are in a doubt, consult the supervisor or an invigilator conducting the examination.*

PART -A

Question 01

Answer the questions given below.

(a) *"The meaning of the word information is mostly context dependant."* Elaborate on this statement in relation to communicating information.

(b) *"Making sense"* is very important as a measure of information. Explain.

(c) Taking a suitable example explain the difference between a signal and a noise in the context of information.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(d) What are the dominant features in an Information Society?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....



(e) Define briefly the following terms with particular reference to Communicating Engineering Information.

(i) Algorithms.

.....

.....

.....

.....

.....

.....

.....

.....

(ii) Units of measurements.

.....

.....

.....

.....

.....

.....

.....

.....

(iii) Graphical symbols.

.....

.....

.....

.....

.....

.....

.....

.....

(iv) Isometric views in sketching.

.....

.....

.....

.....

.....

.....

.....

Question 02

The Open University of Sri Lanka (OUSL) has selected your company as a potential service provider to upgrade its present computer network system. You have been asked to make an oral presentation to the relevant technical staff and administrative staff of the Information Technology division of the OUSL with regard to the system upgrade. Answer the following questions in relation to the above scenario.

(a) List five of the most important particulars related to the audience, which you would verify before you begin to preparing your presentation.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(b) What are the problems you would likely to encounter with if you do not think about the audience before making your presentation?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(c) What characteristics of the venue would you check prior to preparing your presentation?

.....

.....

.....

.....

.....

.....

.....

.....

(d) List five sources you would seek to gather information for your presentation.

.....

.....

.....

.....

.....

.....

Question 03

Answer the following questions.

(a) List five types of technical reports you are familiar with. Explain briefly the purpose of each type.

(i).....

.....

.....

(ii).....

.....

.....

(iii).....

.....

.....

(iv).....

.....

.....

(v).....

.....

.....

(b) A feasibility report investigates whether to undertake a project, such as to place a golf course at a particular site, to construct a dam at a particular location etc. What are the usual sub-sections in a feasibility report?

(c) Discuss the importance of a progress report in a particular project.

(d) List out the main elements contained in a laboratory report on a test conducted to determine the thermal conductivity of a given material.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Question 04

A survey conducted by a medical clinic provides the following statistics for a certain disease. It shows the distribution of patients who registered for the disease and their age group.

Ages (years)	No. of Patience
0 - 9	4
10 - 19	6
20 - 29	10
30 - 39	16
40 - 49	24
50 - 59	10
60 - 69	08
70 - 79	8
80 - 89	4
90 +	0

(a) Calculate and present the data in percentages and cumulative percentages.

.....

.....

.....

.....

.....

.....

(b) Calculate the average age of the patients, who registered at the clinic for the above disease.

(c) What is the standard deviation?

Question 05

The data shown below presents the number of students who sat the Advance Level examination and the number of students who passed the examination over the last five years in a certain school.

Year	2004	2005	2006	2007	2008
No of students sat	75	63	82	90	95
No of students passed	45	38	51	40	62

(a) Construct a suitable graphical representation that best illustrates the above data.

(b) What observations can you make from the data?

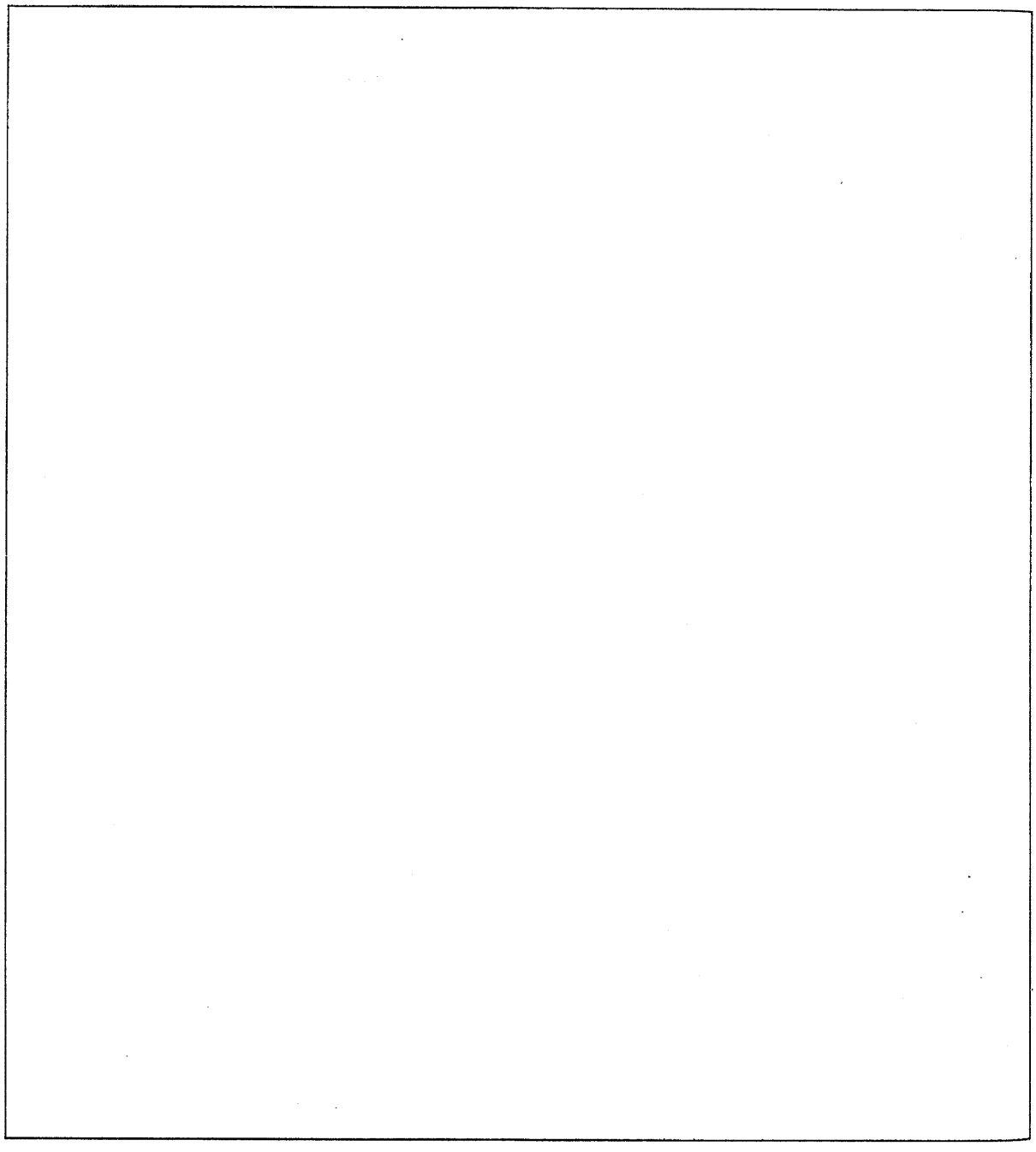
PART - B

Question 06

Construct a scalene triangle to a suitable scale and identify it as PQR.

a) Find the points G (centroid) and H (orthocenter)

b) Draw the mirror image H′G′ of the line HG on RQ



Question 07

Figure Q7 shows an isometric view of a solid object. Draw the Front elevation (X), End elevation (Y) and Plan (Z) in

(i) First angle projection

(ii) Third angle projection

You may use a suitable scale. Name clearly the respective views.

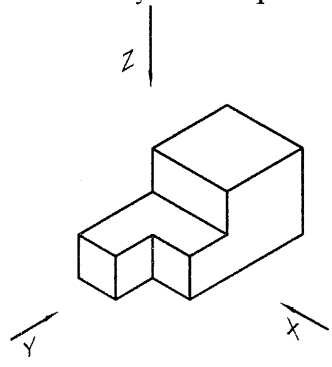


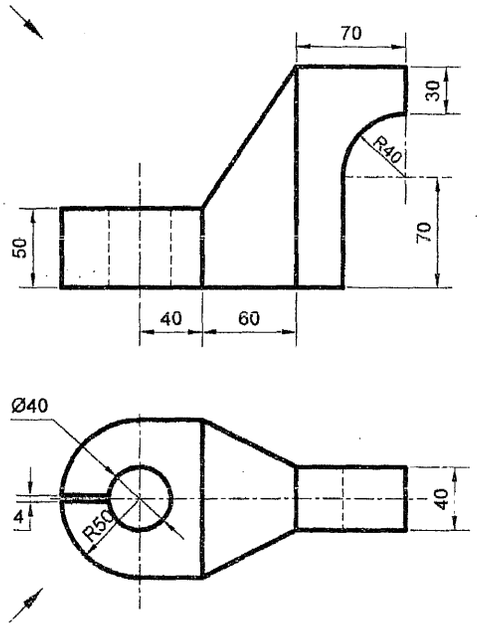
Figure Q7

(i)

(ii)

Question 08

Figure Q8 shows two orthographic views of an object in first angle projection. Sketch the isometric view of the object taking the near point as described by the arrows and within the space given bellow.



FigureQ8

Question 09

Figure Q9 shows an isometric view of an object. Sketch the following orthographic views within the space given below in third angle projection.

(a) Front elevation looking in the direction of arrow "X"

(b) Sectional End elevation projected on Y-Y.

(c) Plan

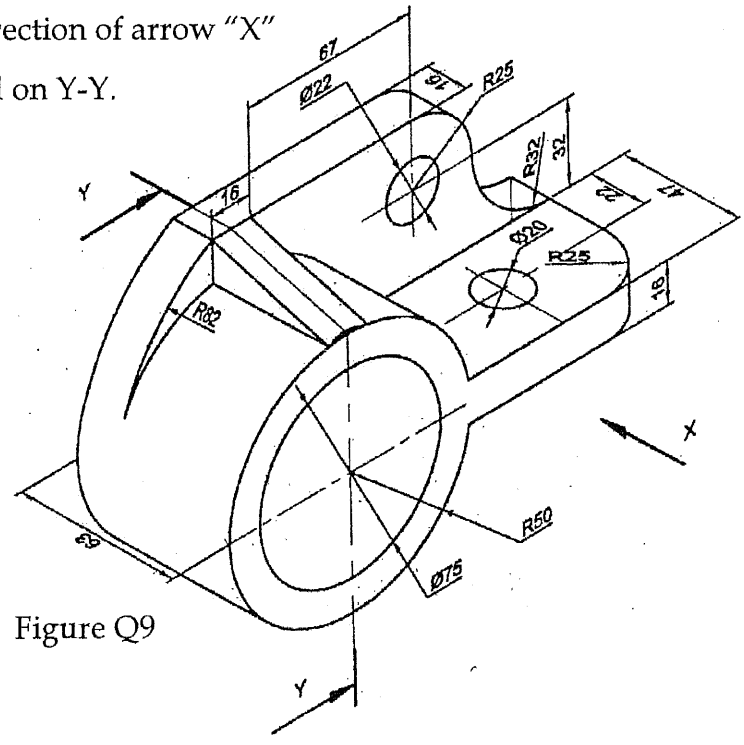


Figure Q9

ALL RIGHTS RESERVED