



The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Mechanical Engineering

Study Programme	: Bachelor of Technology Honours in Engineering
Name of the Examination	: Final Examination
Course Code and Title	: DMX3511/MEX3211 Communicating Engineering Information
Academic Year	: 2017/2018
Date	: 28 th January 2019
Time	: 1.30pm – 5.30pm
Duration	: 4 hours

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General instructions (Please read carefully before you start answering the question paper)

1. This question paper consists of two sections PART A (5 questions) and PART B (4 questions).
2. This question paper consists of nine (09) questions on (09) pages.
3. Answer all questions. PART A will carry 60 marks and PART B will carry 40 marks.
4. Spend at least two and a half (2½) hours for PART A and the rest for PART B.
5. Answers to PART A should be written on the answer book provided by the Examinations Division while answers to PART B should be written or drawn within the space provided under each question on the question paper itself.
6. The whole question paper along with the answers to PART B should be attached with the answer book at the time of collection. It is extremely important that you do not remove the question paper, or any part of the question paper, from the examination hall.
7. Please write your index number in the space provided on the answer book and on the question paper. Do not write your name.
8. Commence to answer each new question on a fresh page with regard to PART A.
9. You may use drawing instruments (other than drawing board and T-ruler) at your discretion.
10. All sketches must be neatly drawn and proportional in sizes.
11. Assume any missing dimensions.
12. If you are in a doubt, consult the supervisor or an invigilator conducting the examination.

PART A**Question 01**

- (a) Distinguish between **data** and **information** taking a suitable example. [02 Marks]
- (b) In an information society, power rests with those who control information. Do you agree? Justify your answer. [05 Marks]
- (c) Briefly discuss the role played by the modern mobile communication devices, in the modern information society. [05 Marks]

Question 02

- (a) The Government has sought your expertise in exploring the possibility of constructing a new international Air-port at the Colombo Port City project. Name two types of technical reports that can be used for the above purpose. [02 Marks]
- (b) Describe the purpose of the above listed technical reports mentioned in part (a) and their main contents. [06 Marks]
- (c) What are the important precautions that need to be taken into consideration with regard to the writing style, for the above mentioned technical reports in part (a)? [04 Marks]

Question 03

- (a) What makes technical drawing a good medium for technical communication? Explain. [03 Marks]
- (b) Explain the four main standard type views that an object could be represented by a technical drawing. [04 Marks]
- (c) Discuss the pros and cons of utilising a computer aided tool such as AutoCAD for making technical drawings. [05 Marks]

Question 04

- (a) Having a prior knowledge about the target audience assures you of conducting an effective presentation. Explain by taking a suitable example. [03 Marks]
- (b) Briefly explain ways and means which you could make a presentation more effective. [03 Marks]
- (c) Name the types of delivery methods available for conducting a presentation. Briefly explain the applicability of each of these delivery methods for conducting presentations. [06 Marks]

Question 05

- (a) Questionnaires are an excellent means of gathering information for various purposes. If you were asked to prepare a questionnaire for the purpose of gathering information, what are the features that you would incorporate into your questionnaire in order to collect the information in an effective manner? *[04 Marks]*
- (b) Thinking critically about the information gathered may lead to the usage of the data in a more effective fashion. Explain the importance of thinking critically about the information collected. *[04 Marks]*
- (c) Even though questionnaires serve as a good source of information gathering, it may be not applicable for all cases. Explain situations where questionnaires may not be an appropriate choice for gathering information and how you would overcome the collection of information *[04 Marks]*

END OF PART A

PART B

IMPORTANT : Sketch your answers to suitable proportions. Dimensions, if given, are only for guidance. You are not required to use the exact dimensions.

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Question 06

Sketch and explain how to construct and draw an Archimedean spiral of one convolution.

[10 Marks]

Question 07

Sketch and explain how to construct and draw a transverse common line tangent to two given circles.

[10 Marks]

Question 08

Figure 1 shows the front elevation, end elevation and plan of an object in first angle projection. Sketch the isometric view of the object taking the nearest point as given by the arrows.

[Correct near point- 03 marks + Isometric view 07 marks = 10 Marks]

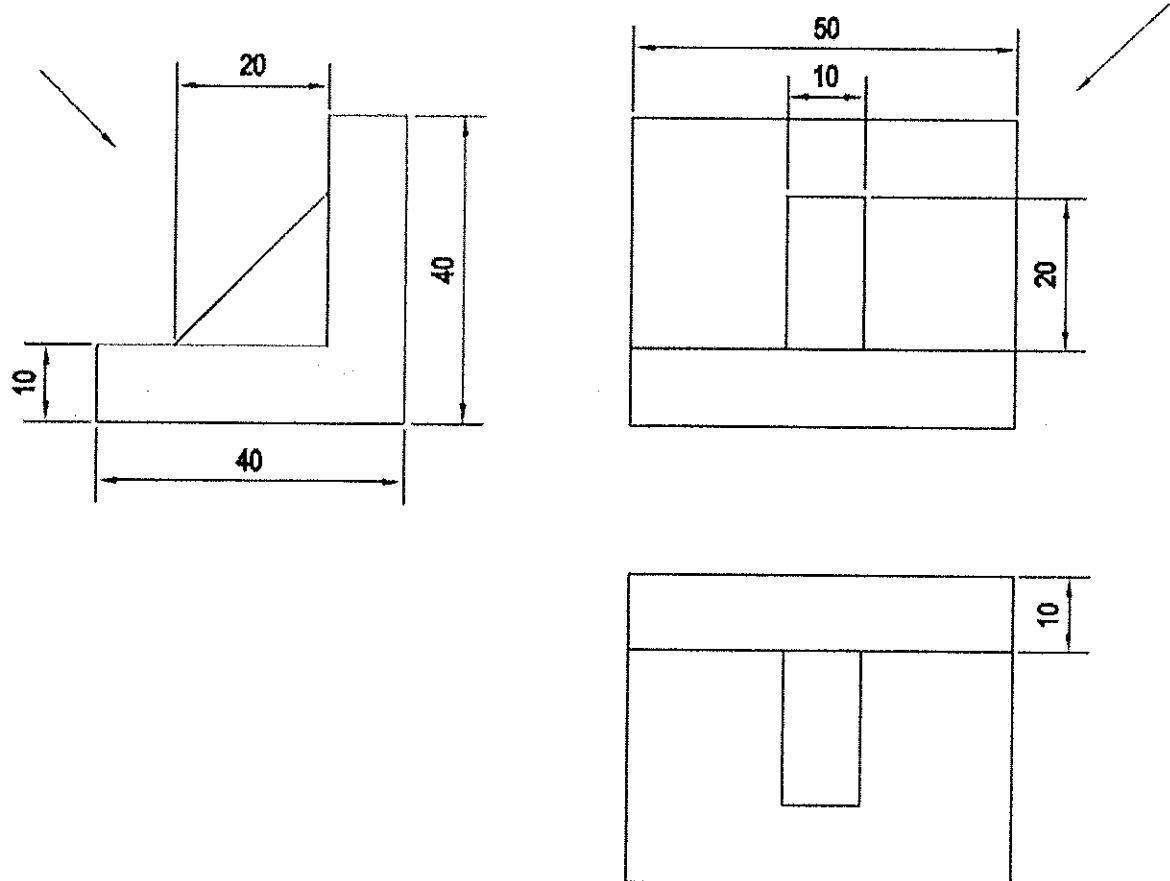


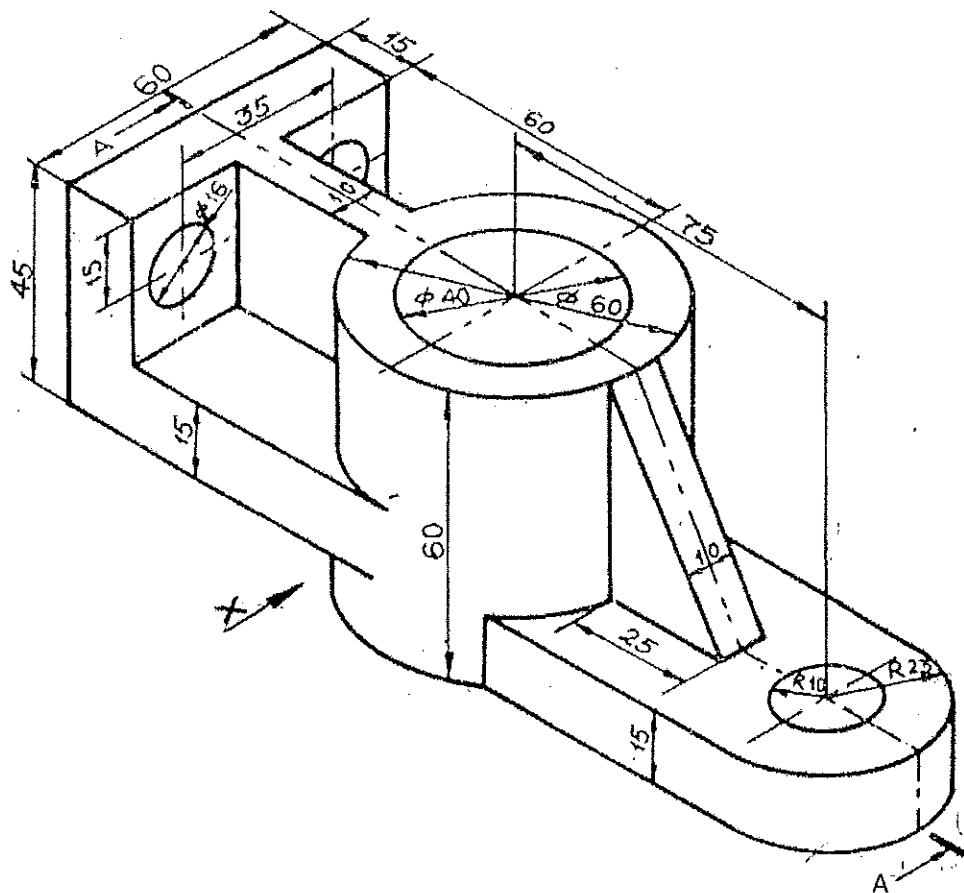
Figure 1

Question 09

Figures 2 show a pictorial view of a solid object which is symmetrical with respect to the vertical plane passing through A-A. Sketch the following views in first angle projection. You are required to show hidden details and name the respective views.

- (a) Sectional Front Elevation of on A-A looking from direction X [03 Marks]
 (b) End elevation projected to left of view (a) [03 Marks]
 (c) Plan projected from view (a). [02 Marks]

[Hidden details and naming – 02 Marks]



All dimensions are in mm

Figure – 2

END OF PART B

