00464

The Open University of Sri Lanka
Faculty of Engineering Technology

Study Programme	:	Bachelor of Technology Honours in Engineering
Name of the Examination	:	Final Examination
Course Code and Title	:	**MEX3211 Communicating Engineering Information**
Academic Year	:	2016/2017
Date	:	18h November 2017
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. Answer all questions. PART A will carry 60 marks and PART B will carry 40 marks.
3. Spend at least two and a half (2½) hours for PART A and the rest for PART B.
4. 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.
5. 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.
6. Please write your index number in the space provided on the answer book and on the question paper. Do not write your name.
7. Commence to answer each new question on a fresh page with regard to PART A.
8. You may use drawing instruments (other than drawing board and T-ruler) at your discretion.
9. All sketches must be neatly drawn and proportional in sizes.
10. If you are in a doubt, consult the supervisor or an invigilator conducting the examination.

PART A

Question 01

(a) Explain the importance of 'making sense' as a measure of information.

(b) Distinguish between **data** and **information** taking a suitable example.

(c) Briefly discuss the dominant features of an information society.

(d) Why are graphical symbols important in communicating information? Elaborate by taking a suitable example.

Question 02

(a) List out at least five features that a questionnaire should contain in order to gather information effectively.

(b) What are the other methods of gathering information, apart from the questionnaire? Briefly describe one of the methods.

(c) Why is it, it's often considered "Thinking critically about the information gathered" , as a good practice for making use of the data in a more effective manner? Explain.

(d) Editing data is one of the major steps in processing information. What attributes of data are expected to be ensured, by processing of editing? State at least five such attributes.

Question 03

(a) Explain the main purpose of a laboratory report and summarize the outline that has to be followed when writing such a report.

(b) Paragraphs serve several purposes within a report. Briefly explain two of the purposes that paragraphs offer in a report.

(c) Briefly explain the main objectives of tabulating data.

(d) State four (04) characteristics that a well-constructed table should possess in a technical report

Question 04

(a) Explain the importance of technical sketching as means of communicating engineering information. What are the features that should be contained in a good technical sketch? Name two such features.

(b) Briefly explain the four main standard type views that an object could be represented by a technical drawing.

(c) What is a flow chart? Using standard elements of a flow chart, construct a flow chart to sort four (04) random numbers in its ascending order.

(d) Explain the use of Gantt charts by taking a suitable example.

Question 05

Answer the following questions based on the given scenario.

You have been asked by your school to conduct a presentation on the Bachelor of Technology Honors in Engineering programme offered by the Open University of Sri Lanka. You have been assigned a time of 30 minutes to conduct the presentation.

(a) Briefly explain the importance of having a prior knowledge of the audience, to make your presentation more effective.

(b) Name the types of delivery methods available for making such a presentation. What type of method would you select? Justify your answer.

(c) What types of visual aids would you select in conducting your presentation? How are the selected visual aids, enhance the effectiveness of your presentation?

(d) Explain how you would plan the content of the presentation.

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 a heptagon is constructed on a given line.

Question 07

Sketch and explain how to construct a circle, tangent to a given line and circle.

Question 08

Sketch and explain how to construct an involute to a given triangle and a square.

Question 09

Draw the isometric view of the object shown in Figure – Q9, taking the near point as indicated by the arrows shown. Use an isometric scale. It is not mandatory that you show hidden details and dimensions in your answer.

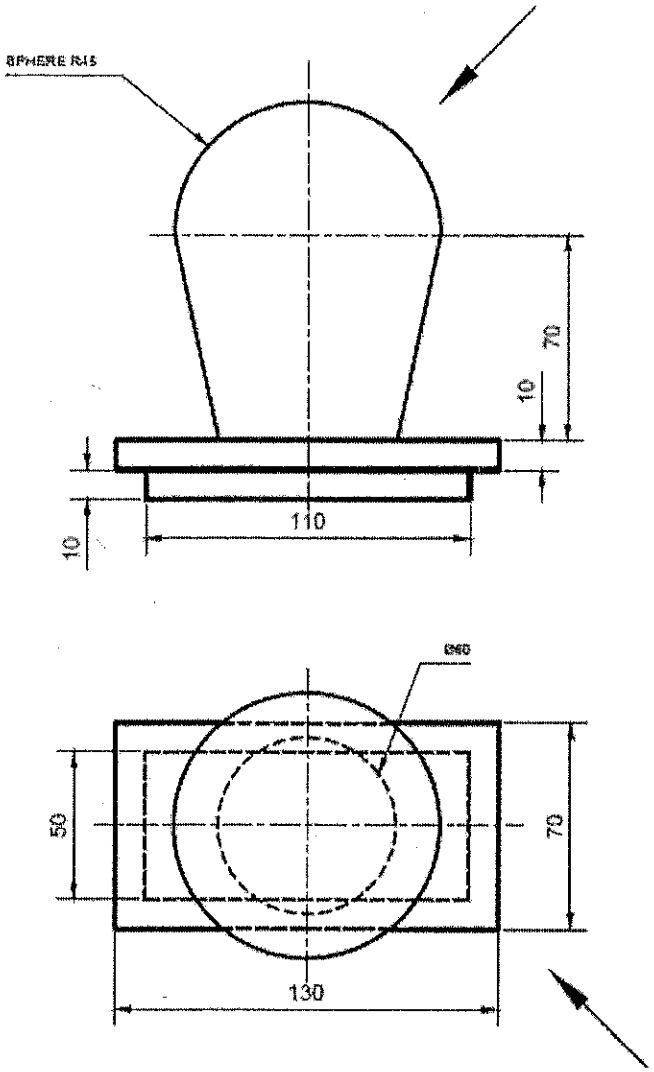


Figure – Q9

All dimensions are in mm