



MACHAKOS UNIVERSITY COLLEGE
(A Constituent College of Kenyatta University)
University Examinations for 2014/2015 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR DIPLOMA IN INFORMATION
COMMUNICATION TECHNOLOGY**

SCE 100: COMPUTER APPLICATION II

Date: 18/3/2015

Time: 8:30 – 10:30 AM

Instructions

Answer **Three** questions

Question one (Compulsory)

- a) State six importance of GIS (6marks)
- b) Name two CAD application packages available on the market. (2 marks)
- c) Differentiate between Agent and Object with respect to AI (4marks)
- d) Outline two advantages and disadvantages of CAD application packages (4marks)
- e) Formatting is a very important practice before one starts drawing an object on a new page Set up.
List down 4 items to be adjusted to enable one achieve a good results after drawing. (4 marks)
- f) Define the following terms as applies to AutoCAD. (4 marks)
 - i. Working space
 - ii. Cross hair
 - iii. Status bar.
 - iv. Mould space.
- g) Briefly outline the procedure for plotting a drawing in monochrome (black and white)(6marks)

Answer any **TWO** questions in this section

Question two

- a) Outline six properties of an agent (6 Marks)
- b) Explain the following terms as used in GIS
 - i. Raster data
 - ii. Vector data
 - iii. Spatial data (6 Marks)
- c) Describe any three types of agents (6 Marks)
- d) Define the term Intelligent Agent as with respect to AI. (2 Marks)

Question three

- a) Outline any five advantages of using GIS. (5Marks)
- b) Identify the five most challenging environment of an Agent (5marks)
- c) Explain the following characteristics of spatial data:
 - i. Location
 - ii. Geometry
 - iii. Topology (6 marks)
- d) Identify any four attributes that make data spatial (4 Marks)

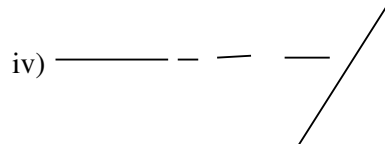
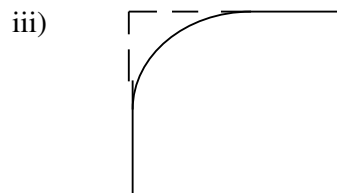
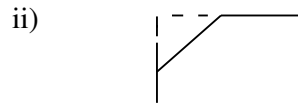
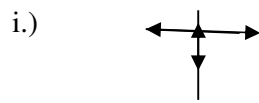
Question four:

- a) Describe any four environment of an agent (8 Marks)
- b) Explain the following terms as used in AI
 - i. Percept
 - ii. Sensors
 - iii. Actuators (6 marks)
- c) Explain what you understand by the term GIS (2marks)
- d) Outline any four application areas of GIS (4 Marks)

Question five:

a) Name and explain the function of the following modifying commands

(8 marks)



b) The fig below shows a table with a circular top and bottom .The diameter of the top is 1500 mm and the diameter of the bottom base is 600 mm respectively. The stand is also circular with a diameter of 75 mm. Describe the procedure of drawing the figure in 3D and providing a finish that makes it look like a real wooden material. List down all commands used to design the table

(12 marks)

