

2920/202A
COMPUTER APPLICATIONS II
July 2022
Time: 2 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE II

COMPUTER APPLICATIONS II

2 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of SIX questions.

Answer FOUR of the SIX questions on the answer booklet provided.

Candidates should answer all the questions in English.

This paper consists of 4 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

1. ✓
- (a) State the meaning of each of the following terms as used in artificial intelligence:
- (i) autonomous robot;
 - (ii) rule;
 - (iii) forward chaining; (3 marks)
- (b) Explain each of the following terms as used in a Geographic Information System:
- (i) resolution;
 - (ii) remote sensing. (4 marks)
- (c) Distinguish between *break* and *explode* commands as used in computer-aided design (CAD) program. (4 marks)
- (d) Outline **four** ways an agricultural extension officer could use Geographic Information System in livestock farming. (4 marks)
2. (a) Outline **three** types of accounts commonly found in double entry book-keeping. (3 marks)
- (b) A CAD user opted to enable each of the following features in a CAD program while drawing:
- (i) ortho mode;
 - (ii) object snap mode;
- Explain the effect of each while drawing. (4 marks)
- (c) Explain **two** processes that can be applied to vector data in a Geographic Information System. (4 marks)
- (d) (i) Explain the term *bank-reconciliation statement* as used in accounting. (2 marks)
- (ii) State a way in which each of the following items are treated in a bank reconciliation statement:
- (I) uncredited cheques;
 - (II) bank charges. (2 marks)
3. (a) Outline the circumstance that may necessitate the use of each of the following features in a CAD program:
- (i) hide layer; ✓
 - (ii) grips. (4 marks)
- (b) Intelligent robots assist in accomplishing dangerous jobs. Outline **three** areas where such robots could be applied. ✓ (3 marks)
- (c) Bitmap Geospace Company would like to set up a geospatial department to provide support services for business dealing with spatial data. Explain **two** GIS components that the company should consider during the setup. ✓ (4 marks)
- (d) Distinguish between *capital expenditures and revenue expenditures as used in accounting*. (4 marks)

4. (a) State **six** examples of infrastructural amenities that could be managed using a GIS in a city. (3 marks)
- (b) Explain the functions of artificial intelligence in each of the following areas:
(i) customer service;
(ii) computer vision. (4 marks)
- (c) Explain the effect of applying each of the following commands to a drawing created in a CAD program.
(i) hatch;
(ii) mirror;
(iii) offset;
(iv) group. (4 marks)
- (d) Elite School management purchased land on credit from Mashamba Limited to expand the school. Explain the effect of this purchase on the following accounting items:
(i) assets;
(ii) liabilities. (4 marks)
5. ✓ (a) The management of Movo company was advised to apply double entry bookkeeping in their accounting procedures.
(i) Explain the meaning of *double entry bookkeeping*. (2 marks)
(ii) Outline **three** benefits that the company gains from using this method of accounting. (3 marks)
- (b) Describe each of the following terms as used in artificial intelligence:
(i) expert system;
(ii) supervised machine learning. (4 marks)
- (c) With the aid of examples, differentiate between *spatial data* and *non-spatial data* as used in Geographic Information System. (6 marks)
6. (a) State a circumstance that would necessitate the use of each of the following CAD commands:
(i) lweight;
(ii) limits;
(iii) oops. (3 marks)
- (b) Explain each of the following types of learning as used in artificial intelligence:
(i) deductive learning;
(ii) abductive learning. (4 marks)

- (c) Distinguish between a *point feature* and a *polygon feature* as used in a geographic information system (GIS). (4 marks)
- (d) Distinguish between a *trial balance* and a *balance sheet* as used in accounting. (4 marks)

THIS IS THE LAST PRINTED PAGE.

easyvet.co.ke