THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE II

COMPUTER APPLICATIONS II

Theory

2 hours

INSTRUCTIONS TO CANDIDATES:

*This paper consists of **SIX** questions.*
*Answer any **FOUR** questions in the answer booklet provided.*
All questions carry equal marks.
Candidates should answer 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) (i) State **three** examples of financial statements prepared in accounting. (3 marks)

(ii) Explain the main function of financial accounting. (2 marks)

(b) State **three** areas of application for each of the following types of lines in a CAD drawing:

(i) continuous-thick lines;

(ii) continuous-thin lines. (6 marks)

(c) Distinguish between *vector* and *raster* data types as used in the GIS software. (4 marks)

2. (a) (i) Outline a way in which neural network would be used in each of the following areas:

(I) Vehicle transportation;

(II) Office electronics;

(III) Speech device;

(IV) Biometric devices. (4 marks)

(ii) State **three** disadvantages of *artificial intelligence* as compared to natural intelligence. (3 marks)

(b) Explain the information represented by each of the following features on a GIS based map:

(i) points;

(ii) polygons. (4 marks)

(c) With the aid of an example in each case, distinguish between *tangible assets* and *intangible assets* as used in accounting. (4 marks)

3. (a) (i) Explain the main role of an *intelligent system* in an organisation. (2 marks)

(ii) Outline **two** benefits that may be realised by using intelligent systems in an organisation. (2 marks)

(b) Explain the effects of each of following accounting entries on both an asset and a liability.

(i) Credit (CR);

(ii) Debit (DR). (4 marks)

(c) Figure 1 shows three views of a 3-dimensional block. Use it to answer the question that follows.

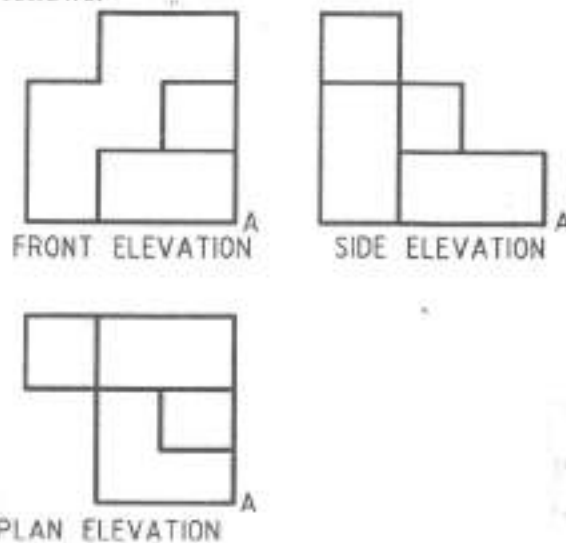FRONT ELEVATION   SIDE ELEVATION

PLAN ELEVATION

Figure 1

Sketch the isometric drawing of the object taking the point A as the lowest point in the drawing. (7 marks)

4. (a) (i) Explain the term *First-In-First-Out* inventory control strategy. (2 marks)

   (ii) Outline a circumstance where *First-In-First-Out* strategy could be used in companies to control inventory. (2 marks)

(b) Lenny, the chief financial officer of XYZ Company has been asked to provide details of deductions made from the company employees' salaries. Outline **three** such deductions that he would provide. (3 marks)

(c) Outline **four** responsibilities that an officer at the ministry of agriculture can perform using a GIS program. (4 marks)

(d) The following are the sugar stock details of a biscuit factory:
   * maximum usage of 5,000 units per week.
   * maximum lead time of 5 weeks.
   * minimum usage of 1,000 units per week.
   * The minimum lead time is 3 weeks.
   * The reorder quantity is 12,000

Calculate the *maximum level of stocks of sugar* that should be held by the factory at any given time. (4 marks)

5. (a) Explain the circumstance under which each of the following commands would be used in CAD application:

   (i) mtext;

   (ii) ortho. (4 marks)

(b)   Distinguish between *breadth-first search* and *bidirectional search* techniques used in artificial intelligence.   (4 marks)

(c)   With the aid of a diagram, outline the features of a journal in accounting.   (7 marks)

6.   (a)   Outline **four** challenges in the development of systems that can understand *natural language* in AI.   (4 marks)

(b)   Explain each of the following accounting terms:

    (i)   return inwards;

    (ii)   direct expenses;

    (iii)   carriage inwards.   (6 marks)

(c)   Figure 2 shows a diagram created in a CAD program. Use it to answer the questions that follow.
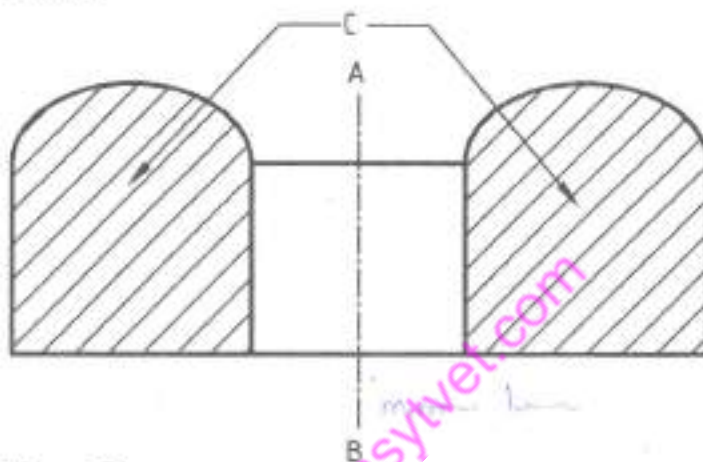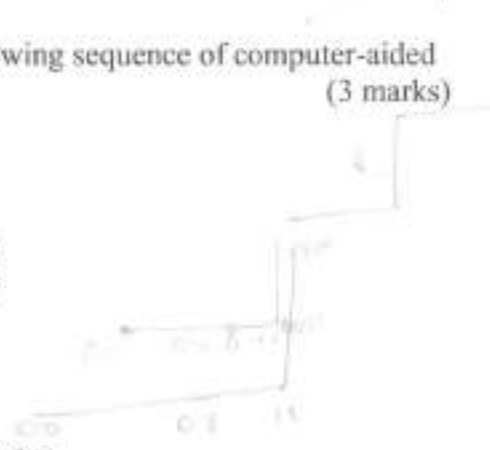

Figure 2

Explain the connotation of the:

    (i)   line segment AB;   (1 mark)

    (ii)   hatched portions labelled C.   (1 mark)

(d)   Sketch the shape that would be formed from the following sequence of computer-aided design (CAD) commands and input.   (3 marks)

```
Line Specify first point: 0,0
Specify next point or [Undo]: 0,800
Specify next point or [Undo]: 1000,800
Specify next point or [Undo]: 1000,1600
Specify next point or [Undo]: 2200,1600
Specify next point or [Undo]: 2200,0
Specify next point or [Close/Undo]: c
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