2920/202A
COMPUTER APPLICATIONS II (THEORY)
Paper 1
July 2019
Time: 2 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE II

COMPUTER APPLICATIONS II (THEORY)

Paper 1

2 hours

INSTRUCTIONS TO CANDIDATES

This paper consists of SIX questions.
Answer any FOUR questions in the answer booklet provided.
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.

Turn over

1. (a) Outline the function of each of the following commands as used in a CAD program.

   (i) units;

   (ii) divide;

   (iii) group;

   (iv) break. (4 marks)

   (b) State **three** types of mechanical components in robots which facilitate their movement in their environment. (3 marks)

   (c) A geometry drawn in a CAD program could not fit on an A4 paper when printed. Outline **three** ways in which this drawing could be made to fit on this paper. (3 marks)

   (d) The following list of balances has been extracted from the books of Kakai Moli, a sole trader, as at 30 June 2018.

	Ksh
Stock (1 July 2017)	300,820
Purchases	1,700,800
Sales	4,100,160
Drawings	110,000

   The following additional information is also available:

   1. Stock as at 30 June 2018 Ksh. 400,660.

   2. Drawings of stock amounted to Ksh. 36,400

   Prepare the trading account for Kakai Moli for the period ended 30 June 2018.

   (5 marks)

2. (a) The following errors and omissions have been identified in the books of Jimmy Enterprise Ltd.

   - Ksh 200,000 cash received from sale of an old motor vehicle had been correctly entered in the cash book and debited in the discount received account.

   - A cash payment of Ksh 40,000 for wages entered in the cash book had not been entered in the wages account.

   Show the necessary entries in the journal to correct these errors. (4 marks)

   (b) With the aid of an example in each case, distinguish between *trim* and *extend* commands as used in a CAD program. (6 marks)

   (c) Phone manufacturers have created phones which allow drivers to use *voice commands* to activate phones while driving.

   (i) State **two** hardware requirement for these types of phones. (2 marks)

   (ii) Outline **three** challenges that may be faced by using voice commanded phones. (3 marks)

3. (a) Thuran Enterprises purchased office furniture on 1 July 2017 for Ksh 1,000,000. The furniture is depreciated at 20% per annum on net book value.

Show the necessary entries in the following accounts for the year ended 30th June 2018.

(i) Accumulated depreciation account.

(ii) Asset account. (5 marks)

(b) Describe each of the following components of a *Geographic Information System*:

(i) software;

(ii) data;

(iii) methods. (6 marks)

(c) Figure 2 is a drawing created by modifying Figure 1 in a computer aided design program. Outline the procedure to be followed to achieve this. (4 marks)
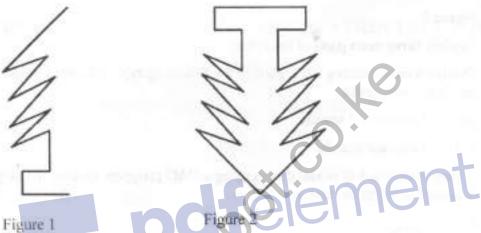

Figure 1   Figure 2

4. (a) Show the journal entries necessary to record the following transactions: (5 marks)

May 1 2018   Bought a motor vehicle on credit from Kawe Motors Ltd for Ksh 679,600.

May 3 2018   A debt of Ksh30,400 owing from Smart Wears Ltd was written off as a bad debt.

(b) Sketch the shape that would be formed from the following sequence of computer-aided design (CAD) commands and input. (4 marks)

```
LINE Specify first point: 0,0
Specify next point or [Undo]: 25,0
Specify next point or Undo]: 0,25
Specify next point or [Close/Undo]: 25,0
Specify next point or [Close/Undo]: 0,25
Specify next point or [Close/Undo]: -50,0
Specify next point or [Close/Undo]: C
```

(c) With the aid of an example in each case, distinguish between *raster data* and *vector data* as used in GIS (6 marks)

5. (a) Differentiate between a *cashflow statement* and an *income statement* as used in accounting. (3 marks)

(b) Explain **three** application areas of *computer vision* as used in artificial intelligence. (6 marks)

(c) Keli Company intends to buy ABC company. Explain **three** indicators that Keli management should use to determine its ABC profitable. (6 marks)

(a) State **three** examples of geographic information system applications (GIS) in the market. (3 marks)

(b) Figure 3 shows a human robot. Use it to answer the question that follows:

Figure 3

Explain **three** main parts of the robot. (6 marks)

(c) Outline a circumstance when each of the following types of search algorithms is used in artificial intelligence. (2 marks)

(i) Uninformed search;

(ii) Informed search.

(d) Figure 4 show a 3-D model drawn using a CAD program. Outline the steps to be followed to insert the text as it appears. (4 marks)

Figure 4

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