

2920/202A
COMPUTER APPLICATIONS II (THEORY)
Paper 1
November 2016
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 of the SIX questions in the answer booklet provided.
All questions carry equal marks.
Candidates should answer the questions in English.*

**This paper consists of 5 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) Define each of the following terms as used in financial accounting:
 - (i) cash account; (2 marks)
 - (ii) balance sheet. (2 marks)
 - (b) When Jane was browsing through a financial accounting application folder, she noted the files named KIKOTI.QBB and KIKOTI.QBW. Distinguish between the information in the two files. (4 marks)
 - (c) DesignBlue is an architectural design company for houses. The company uses computer-aided design (CAD) templates for their new tasks.
 - (i) Define the term template; (2 marks)
 - (ii) Explain benefits that the company is likely to gain from using this approach. (2 marks)
 - (iii) Outline **three** advantages the company would gain by using computer-aided design (CAD) programs instead of the manual system. (3 marks)
2. (a) Explain the role of each of the following types of accounting in an organisation.
 - (i) financial accounting; (2 marks)
 - (ii) management accounting. (2 marks)
 - (b) An organisation is tasked to map all the natural resources in a region using a geographic information system (GIS) application. Explain a reason that would make the company to use each of the following types of data in the system:
 - (i) Point data; (2 marks)
 - (ii) Linear data; (2 marks)
 - (iii) Areal data. (2 marks)

- (c) Figure 1 shows structure of a classical knowledge processing system. Use it to answer the questions that follow.

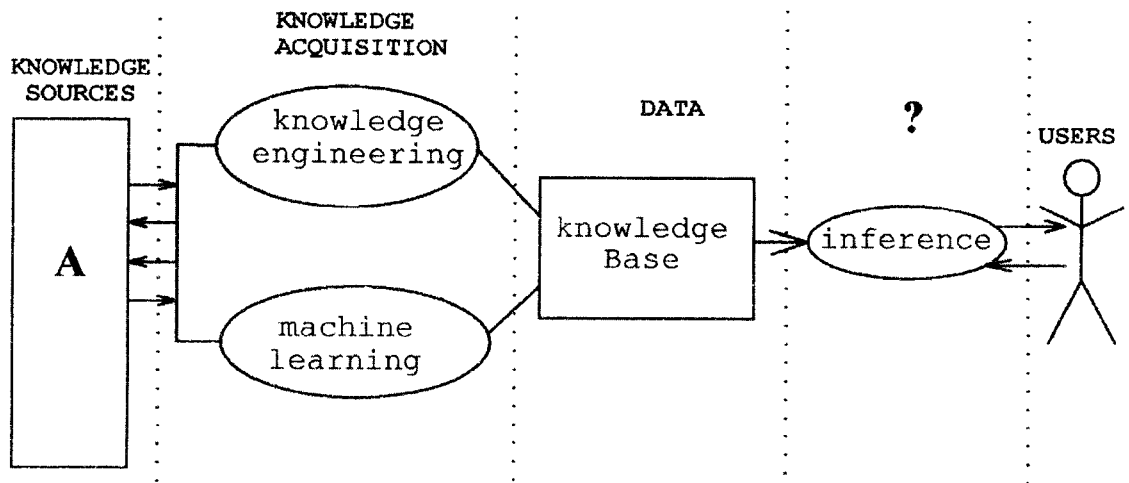


Figure 1

- (i) Explain how a user interacts with the system. (2 marks)
- (ii) Explain the function of the section labelled inference. (2 marks)
- (iii) List **two** examples of knowledge sources represented by A. (1 mark)
3. (a) List **four** stake holders who may have interests in financial accounting reports produced by a bank. (2 marks)
- (b) Determine the owner's equity for a company which has the following balances in their books of accounts. (3 marks)
- Land worth Ksh.1,000,000
 - Machinery worth Ksh.2,050,000
 - Cash amounting to Ksh. 2,900,000
 - Loan borrowed worth Ksh.5,000,000
- (c) Explain how artificial intelligence is used in each of the following areas.
- (i) Planning. (2 marks)
- (ii) Scheduling. (2 marks)

- (d) Figure 2 shows a geometrical diagram drawn using a computer-aided design (CAD) program. Use it to answer the questions that follow.

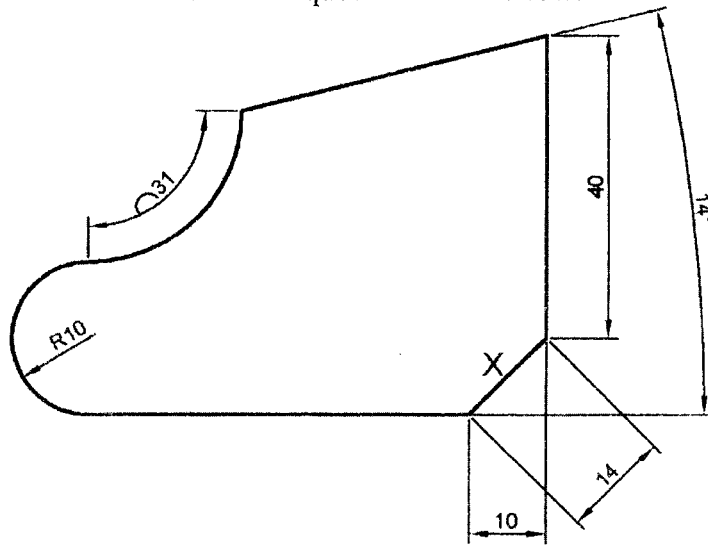


Figure 2

- (i) Identify **four** types of dimensions applied in the drawing. (2 marks)
 - (ii) Outline the steps taken to create portion of the drawing labelled X. (2 marks)
 - (iii) A copy of the drawing is required to be enlarged by factor 2. Describe the procedure to be followed. (2 marks)
4. (a) Explain **two** reasons why organizations prepare trial balances in their financial accounting procedures. (4 marks)
- (b) The Ministry of Education intends to develop a geographic information system (GIS) system that would be used to study the distribution of schools in the country. Outline **three** ways in which they would get spatial data into their system. (3 marks)
- (c) Figure 3 shows two views of a 3-dimensional block. Use it to answer the question that follows.

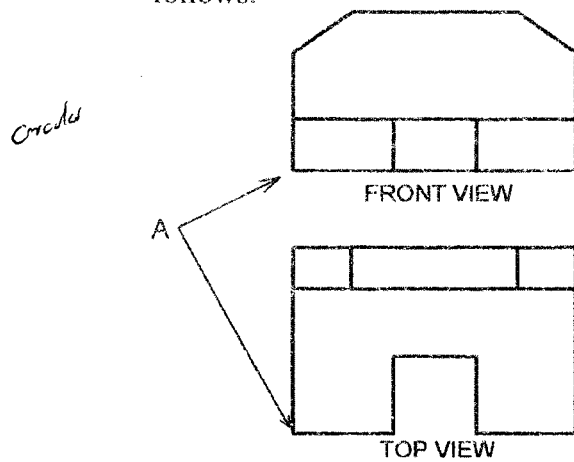


Figure 3

Sketch an isometric drawing of the object taking the point A as the lowest point in the drawing. (5 marks)

- (d) Distinction between *intelligent agents* and a *percept* as used in artificial intelligence. (3 marks)
5. (a) A new college has been advised to record their financial transaction using journals. Explain **three** benefits gained from this approach. (6 marks)
- (b) Explain **two** models used to represent spatial data digitally in geographic information systems (GIS). (4 marks)
- (c) Distinguish between *inductive reasoning* and *deductive reasoning* as used in artificial intelligence. (3 marks)
- (d) Describe the shape that would be formed from the following sequence of computer-aided design (CAD) commands and input. (2 marks)
- Line Specify first point: 0,0
Specify next point or [Undo]: 50,0
Specify next point or [Undo]: 50,30
Specify next point or [Close/Undo]: 0,30
Specify next point or [Close/Undo]: c
6. (a) In the following list of computer-aided design (CAD) program commands.
Explode Viewport Join Spline UCS
- (i) identify those which do not alter the shape of the drawing. (1 mark)
- (ii) In each case, state the use of the commands identified in (i). (1 mark)
- (d) Describe each of the following pricing methods used in inventory controls.
- (i) FIFO; (2 marks)
- (ii) LIFO; (2 marks)
- (c) Distinguish between a *note* and *an invoice* as used in accounting. (3 marks)
- (d) Describe each of the following search techniques used in Artificial Intelligence.
- (i) breadth-first search; (2 marks)
- (ii) bidirectional search; (2 marks)
- (iii) hill-climbing search; (2 marks)

THIS IS THE LAST PRINTED PAGE.