2920/102A
COMPUTER APPLICATIONS I (THEORY)
Paper 1
July 2021
Time: 2 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE I

COMPUTER APPLICATIONS I (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 **three** types of user interfaces used in operating systems. (3 marks)

(b) With the aid of **two** examples in each case, explain the folowing terms as used during relational database design:

(i) entity;

(ii) attribute. (4 marks)

(c) Dorothy created a table in a database and selected the data type *number* for the field named *marks* in the design view. Outline **four** *Field Size* properties she could have selected for this data type. (4 marks)

(d) Paul used the *Presenter View* option to present his research results using a presentation program. Outline **four** features that he could have used from this view. (4 marks)

2. (a) Explain the term *search engine* as used in the Internet, giving **two** examples. (3 marks)

(b) Describe each of the following types of operating systems:

(i) single user single task;

(ii) single user multitasking. (4 marks)

(c) A student keyed in data in a worksheet created using a spreadsheet program. Explain **two** types of data types the student could have used in the worksheet. (4 marks)

(d) Naks Company intends to connect its computers to the Internet. Explain **two** internet requirements they need for this connectivity. (4 marks)

3. (a) Outline **three** advantages an organization would derive from installing a network operating system. (3 marks)

(b) Peter applied each of the following keyboard keys combination in a word processing program:

(i) Ctrl + C;

(ii) Ctrl + Z;

(iii) Alt + F4;

(iv) Alt + Tab.

State the output he got when each of them was applied. (4 marks)

(c) Differentiate between *a footnote* and *an endnote* as used in a word processing document. (4 marks)

(d) A publication designer inserted a picture on a brochure created using a desktop publishing application. Outline **four** ways he could manipulate the picture. (4 marks)

4. (a) Outline the function of each of the following elements of an e-mail window:

(i) header;

(ii) message;

(iii) signature. (3 marks)

(b) Describe each of the following features as applied in databases:

   (i)   Sorting; *help to arrange data in either alphanumeric order*

   (ii) Indexing. *help to put / set out index.*   (4 marks)

(c) Figure 1 shows data tools used in a spreadsheet program. Use it to answer the question that follows.

refer to page break

help to view the formulae
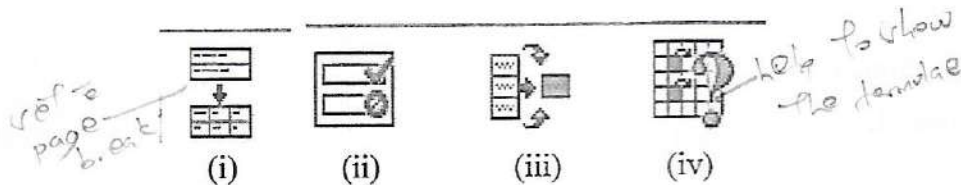
(i)   (ii)   (iii)   (iv)

Figure 1

State the function of each of the tools labelled (i), (ii), (iii) and (iv).   (4 marks)

(d) Terry intends to design a brochure for a soap manufacturing company using a desktop publishing program. Explain two types of margins she is likely to set.   (4 marks)

— folded / one page / two pages   (A5 A4)

5. (a) Outline the function of each of the following *View Adjustment* commands as used in a presentation program window:

   refer to new black window

   (i)   New Window;

   (ii) Arrange All;

   (iii) Move Splitters.   (3 marks)

(b) Figure 2 shows projects evaluated by a company using a spreadsheet program. The company determines the status as *Accept* or *Reject* respectively for each project, if the Internal Rate of Return (IRR) is above the percentage in cell B6.

	A	B	C
1		IRR	Status
2	Project 1	13%	Accept
3	Project 2	9%	Reject
4	Project 3	7%	Reject
5	Project4	15%	Accept
6		10%	

Figure 2

Write a formula that may have been used to generate the status in cell C2:C5. (4 marks)

(c) Distinguish between *slide tab* and *outline tab* as used in presentation programs.

                                    (4 marks)

(d) With the aid of a sketch in each case, outline the results of applying the following transformations to the object labelled **I** in a desktop publishing program.

I

(i) Left Rotation of 90^0;

(ii) Flip Vertical. (4 marks)

6. (a) Outline the meaning of each of the following field properties as used in databases:

(i) field size; ~show the number of field pt in dec

(iii) validation rule;

(iii) validation text. (3 marks)

(b) Ben applied timing transition effects on the slides he created using a presentation program. Outline **four** such effects he could have applied. (4 marks)

—bubble / crawling / blinking /

(c) Explain **one** circumstance that would necessitate an organization to use each of the following data processing techniques: large amount of data / similar data

(i) batch processing;

(ii) online processing. where time is critical (4 marks)

(d) Figure 3 is a section of a database table. Use it to answer the question that follows.

Student_ID	Student_Name	Semester	Age
1001	John	1st	19
1002	Kate	2nd	X	—(ii) —repeated
1003	Morgan	3rd	24

(i)

Figure 3

Explain the type of integrity constraints applied in (i) and (ii). (4 marks)

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