

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.

marks table
 1. (a) Outline three types of user interfaces used in operating systems. (3 marks)

Name	Age
ID	Address

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

- (i) entity: number, school, ordered
- (ii) attribute.



(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)

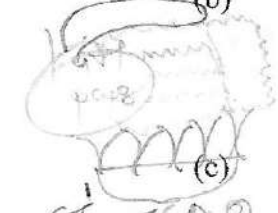


(d) Paul used the *Presenter View* option to present his research results using a presentation program. Outline four features that he could have used from this view. (4 marks)

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; only one task
- (ii) single user multitasking; many tasks



(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)

- 1 - 17
- 2 - CM
- 3 - 10

(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; Copy
- (ii) Ctrl + Z; Cut
- (iii) Alt + F4;
- (iv) Alt + Tab; space

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)

Marks	Size
✓	number
✓	text
✓	memo
✓	letter
	text box
	value

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

- (i) header; show topic usually at the top of mail
- (ii) message; help comm to complete
- (iii) signature; to assure that your is one who is responsible

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

- (i) **Sorting:** help to arrange data in either alphabetical order
- (ii) **Indexing:** help to put / not put index. (4 marks)

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

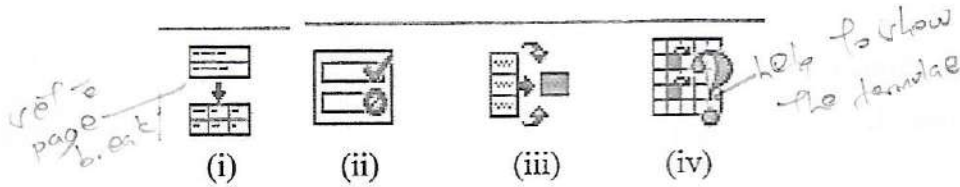


Figure 1

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)

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

- (i) **New Window:** help to new black 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	Project 4	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° ;
 (ii) Flip Vertical. (4 marks)

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

- (i) field size; *how the number to field put in doc*
 (ii) 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)

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

- (i) batch processing; *large amount of data / similar data*
 (ii) online processing; *where data 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	1 st	19
1002	Kate	2 nd	X ← (ii)
1003	Morgan	3 rd	24

(i)

Figure 3

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

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