

451/1 - COMPUTER STUDIES – Paper 1
(THEORY)
NOVEMBER 2021 – 2½ hours

NameClassAdm no.....

Index no. Candidate's signature

SUKELLEMO EVALUATION EXAMINATION - 2021

Instructions to Candidates

- (a) Write your name and index number in the spaces provided above.
- (b) This Paper consists of **two** sections **A** and **B**.
- (c) Answer **all** the questions in **section A**.
- (d) Answer **question 16** (compulsory) and any other **three** questions from section **B**.
- (e) All answers should be written in the spaces provided.
- (f) **This paper consists of 14 printed pages.**
- (g) Do **not** remove any pages from this booklet.
- (h) Candidates should check to ensure that all pages are printed as indicated and no questions are missing.
- (i) Candidates should answer the questions in English.

FOR EXAMINER'S USE ONLY

Section	Questions	Candidate's score
A	1- 15	
B	16	
	17	
	18	
	19	
	20	
	TOTAL SCORE	

SECTION A (40 MARKS)

Answer ALL questions in the spaces provided

- 1) a) Define peripheral device (1mark)

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- b) Give *two* examples peripheral of devices (2marks)

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- 2) Define the following monitor terminologies (2marks)

- a) Resolution

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- b) Pixel

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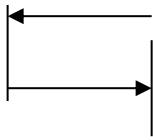
- 3) Give *two* reasons why are USB ports becoming quite common with modern devices(2mks)

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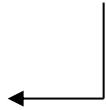
- 4) Indicate whether the following devices are used for input or output (2marks)

- i) Plotter
- ii) Scanner
- iii) Mouse
- iv) Visual display unit

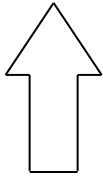
5) Name and explain the function of the keyboard keys shown below



Name.....
Function.....
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.....(2marks)



Name.....
Function.....
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Name.....
Function.....
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6) Define the following terms as used in data security (2marks)

a) Log files

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b) Tapping

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7) List *three* factors one would consider before enrolling for an ICT course in a college

(3marks)

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8) State *two* advantages of automated production in manufacturing industries(2marks)

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9) Describe each of the following Desktop publishing terms: (2marks)

a) Cropping

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b) Master page

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10) List *three* classification of operating systems based on user interface. (3marks)

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11) Explain each of the following disk management activities carried out by operating systems:

a) Formatting (2marks)

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b) Back up (1mark)

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c) Defragmentation. (2marks)

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12) Explain *two* uses of forms in database design

(2marks)

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13) State *one* advantage of relational database over flat file

(mark)

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14) List *three* components of an expert system

(3marks)

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15) Distinguish between sign in and sign up in relation to emails

(2marks)

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SECTION B (60 MARKS)

Answer question 16 and any other three questions from this section in the spaces provided.

16) a) State **three** qualities of a good pseudocode? (3marks)

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b) i) State the **three** translators used in programming (3marks)

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ii) List **two** examples of;

i. Third generation languages (1mark)

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ii. Object oriented languages (1mark)

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c) Draw a flowchart that was used to come up with the following pseud code (7marks)

Start
N=0
X=0
While n < 3
Repeat
X = X + 1
While x < 2
N = N + 1
End while

Stop

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17) a) Some of the stages in the system development life cycle (SDLC) include system analysis, system design, system implementation, system review and maintenance. State **four** activities carried out during system implementation stage. (4marks)

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b) Explain **three** circumstances under which observation method may be preferred during data collection (3marks)

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c) List any *four* areas that have to be designed at the fourth stage. (4marks)

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d) Explain the meaning of the following system characteristics. (4marks)

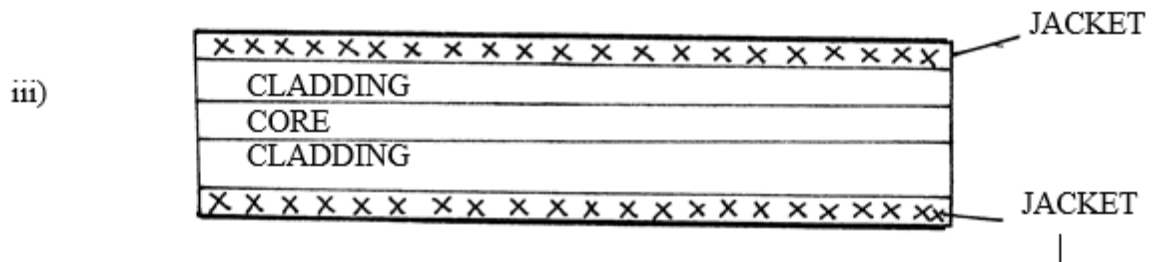
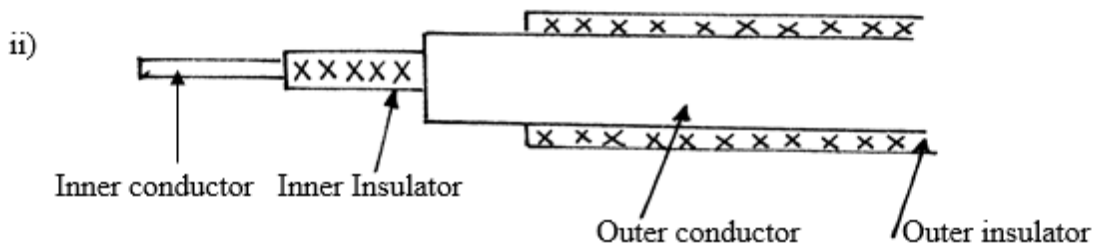
i) Entropy

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ii) Controls

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18) The following diagrams shows various transmission media for networking to computers.



a) Name the transmission media shown in the diagrams above. (3marks)

i)

ii)

iii).....

b) State any *two* advantages of using medium (i) over medium (iii) (2marks)

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c) Explain the difference between a bridge and a gateway. (2marks)

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d) Give the use of the following networking devices. (3marks)

i) Network interface card (NIC)

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ii) Router

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iii) Repeater

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iv) Explain the difference between a Data Terminal Equipment (DTE) and Data Circuit – terminating Equipment (DCE) (2marks)

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(e) (i) Distinguish between **microwave** and **satellite** transmissions. (2marks)

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(ii) Give an example of internet protocol (1mark)

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19) (a) Convert each of the following binary numbers to decimal equivalent given that the left most digit is a sign bit.

(i) 00101101 (2marks)

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(ii) 11001001 (2marks)

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(b) Convert the decimal number 0.42_{10} to 6 bit binary notation (4marks)

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(b) Time sharing mode is most commonly used in data processing. With the aid of a diagram, describe the processing mode (5marks)

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20) a) Explain data series, axis and legends as used in spreadsheet charts. (3marks)

i. Data

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ii. Axis

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iii. Legend

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b) A Computer accessories vendor needs to order supplies. A spreadsheet is used to calculate the order part of which is shown below.

	A	B	C	D
1	Item	Price per unit	Number ordered	Cost (Kshs)
2	56K modem	8565.00	60	
3	128 MB Ram	4950.00	40	
4	Pentium IV Processor	13525.00	55	
5			Total	

Write the formula that can be used in:

(i) D2 (1mark)

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(ii) D5 (1mark)

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(iii) if a value added tax (VAT) of 16% was charged on each item and the number ordered was decreased by 10%, write a new formula that can be used in D2. (2marks)

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c) a) In word processing lines of text can be indented in several ways, name the type of paragraph indent illustrated in the paragraphs below.

i)

This document does not contain headings. To create navigation tabs, create headings in your document to apply heading styles

..... (1mark)

ii)

This document does not contain headings. To create navigation tabs, create headings in your document to apply heading styles

..... (1mark)

d) Differentiate between footnotes and endnotes as used in word processing (2marks)

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e) Amina a teacher of computers studies in Barnet high was teaching her students how to manipulate data using a word processing table. A section of the table is shown below, study it and answer the question that follows

SUBJECT	SCORE
ENGLISH	78
GEOGRAPHY	91
CRE	68
MATHS	73
TOTAL	

Suggest the formula that can be entered to obtain the Total score of the subjects listed (2marks)

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f) Describe the function of each of the following alignment tools (2marks)

i) Text wrap

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ii) Shrink to fit

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THIS IS THE LAST PRINTED PAGE.

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