

NAME: Teachers Copy ADM NO: Class

CANDIDATES SIGNATURE: DATE:

451/1
KCSE COMPUTER STUDIES PAPER 1 - THEORY
FORM 1
FEBRUARY -2018
MID TERM EXAMINATIONS
TIME: 2 ½ HOURS

FOCUS A365

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ST. CLARE GIRLS HIGH SCHOOL - GATUNDU

Kenya certificate of secondary education (K.C.S.E)

Instructions to candidates.

- a) Write your name and index number in the spaces provided above.
- b) Sign and write the examination date.
- c) Answer all the questions in the spaces provided in the question paper.
- d) Write your answers in English
- e) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

Candidate's score	Maximum score
	100
Teacher's Comment:	

*This paper consists 9 of printed pages
Candidates should check to ascertain that all pages are printed as indicated and that no question is missing.*



1 a) Describe the term computer

1 mk

An electronic device that converts data into Information

2 Define the following terms in relation to computers

a) Information

1 mk

Data that has been processed and has meaning

b) Data

1 mk

Raw facts that are meaningless to the user.

3 Write the following acronyms in full:

a) UPS → Uninterruptible Power Supply,

1 mk

b) PSU → Power Supply Unit

1 mk

c) VDU → Visual display Unit

1 mk

4 List the **four** major parts of a computer and their functions

8 mks

① Keyboard

Enter data into the computer

② Mouse

Input data

③ Chassis/system unit

Houses other parts of the computer

④ Screen

show what happens in the system unit



5 Distinguish between:

a) Super computers and mini computer

2 mks

<p><u>Super</u> Are larger Are more powerful</p>	<p><u>MINI</u> Are smaller Are less powerful</p>
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b) Digital computers and analogue computers

2 mks

Digital computer process data which is discrete in value, Analogue computer process data that is continuous in nature.

c) Hybrid computers and dedicated computers

2 mks

Hybrid computers process both digital & analogue data.

Dedicated computers are general purpose computers dedicated to do one task.

d) Main frames and micro computers

2 mks

<p><u>Main</u> Large More powerful Not portable</p>	<p><u>Micro</u> Small Less powerful Portable</p>
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e) Special purpose computers and general purpose computers

2 mks

Special computers perform only one task
General purpose computers perform a variety of tasks

6 What is the main purpose of a computer?

1 mk

To accomplish a task with the user.

7 State three functions of a computer

3 mks

Input
Processing
Output



Hospitals → Scanning
 → Diagnosis
 → Security
 → Storage of Information
 → Research
 → Communication
 → Automating Measuring Instruments, like thermometers

Schools → Learning Aids
 → Office used i.e typesetting
 → Storage of Information
 → Fees processing
 → Exams processing
 → Research

Banks → Transaction
 → Validating cheques
 → Accounting

1. Input
2. Processing
3. Output

10 State any **three** differences between *third generation* computers and *fourth generation* computers. 3 mks

<p><u>THIRD</u></p> <p>Used ICs</p> <p>LARGER IN SIZE</p> <p>Low speed.</p> <p>Low Memory</p>	<p><u>FOURTH</u></p> <p>Used VLSI</p> <p>SMALLER</p> <p>Great processing speed</p> <p>Higher Memory</p>
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11 State **two** differences between desktop and laptop computers 2 mks

<p><u>Desktops</u></p> <p>Larger</p> <p>Not portable.</p> <p>Cheaper</p> <p>No battery</p>	<p><u>LAPTOPS</u></p> <p>Smaller</p> <p>Portable</p> <p>Expensive</p> <p>Have battery.</p>
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12 List any **four** advantages of computers 4 mks

1. More Accurate
2. Can work in hazardous places
3. Are fast
4. Can store a lot of information
5. Don't get tired
6. Occupy less space.
7. Can do repetitive tasks

13 Briefly explain **two** similarities and **two** differences between human beings and computer systems 4 mks

Humans Differences Computers

Humans use cells to process information while computers use electrical signals.

Humans don't get tired while computers do.

Computers are fast humans are slow processing.

Computers store more information than humans.

Similarities

Both can process data

- Both can store information
- Both can move from place to place (robot)
- Both can make logical decisions



14 Why is it advisable to install gaseous fire extinguishers in the computer lab other than water or powder extinguishers? 1 mk

Water or powder may spill on computer parts thus spoiling them.

15 State the uses of the following keys on the keyboard

a) Return key (enter)

Enter a command

1 mk

b) Backspace key

Delete

1 mk

c) Delete key

Delete

1 mk

e) Caps lock

Change letter cases i.e Capital/upper case & Lower

1 mk

f) Numlock

Activates Numbers keypad.

1 mk

16 Describe the following terms in relation to the usage of a computer mouse

a) Scrolling

Moving the mouse's scroll wheel. Move the pointer along a flat surface to current page on the screen.

1 mk

b) Clicking

Pressing the left button of the mouse

1 mk

c) Drag and Drop

A technique of using a mouse to move objects along and across the screen by dragging the mouse.

1 mk

(dragging here means, pressing the left mouse button on an object and moving the mouse).



17 State **three** safety precautions that should be observed in the computer

3 mks

Laboratory to avoid users from physically damaging computers

1. Avoid bringing drinks and food stuffs to the lab
2. Avoid aimless movements in the lab
3. Keep the computer lab clean and tidy

18 Describe any **two** practices that can cause fire in the computer laboratory

2 mks

1. Inflammable Substances
2. Power Fault
3. Smoking

19 Mokeira went into a computer shop to purchase a desktop computer. Underline from the list below **two** features she should *not necessarily* consider before purchasing it.

2 mks

- a) Processor speed
- ~~b) Colour~~
- c) Memory capacity
- d) Storage capacity
- e) Multimedia capabilities
- f) Price
- g) Warranty
- ~~h) Shape~~

20 Match the following technological advancements against the generation of computers they were used:

- | | | |
|----------------------------|----------------------|-------|
| 1. VLSI (d) | a) SECOND GENERATION | 4 MKS |
| 2. VACUUM TUBES (c) | b) THIRD GENERATION | |
| 3. TRANSISTORS (a) | c) FIRST GENERATION | |
| 4. INTEGRATED CIRCUITS (b) | d) FOURTH GENERATION | |



21 Fill the blank spaces below:

- i CHARLES BABBAGE discovered the analytical engine and is also referred to as the father of modern computers. 1 mk
- ii The first computer was referred to as ABACUS 1 mk
- iii ANALOGUE, DIGITAL and HYBRID is the classification of computers in terms of functions 3 mks
- iv The CPU of a microcomputer is also known as MICROPROCESSOR 1 mk
- v PSU is a component in the computer chassis used to convert alternating current to direct current for consumption by the computer. 1 mk
- vi KEYBOARD/PAD is a peripheral device used to enter data inform of text into the computer. 1 mk
- vii It is an input device and also a pointing device used specifically to play games with the computer. Its name is? JOYSTICK 1 mk
- viii TABLET/LIGHTPEN is a gadget that can be used to input digital signatures into the computer. 1 mk
- viii CLICKING is a term used to refer to pressing the mouse button once. 1 mk
- ix RAM/ROM is a device that temporarily stores data in the computer. It is also referred to as the computer memory. 1 mk
- x The HEAT SINK and the FAN work hand in hand to cool down the CPU during processing. 2 mks

22 a) Why is a computer referred to as an electronic device? 1 mk

BECAUSE IT USE ELECTRICAL SIGNALS

b) State two safety precautions used in the computer laboratory to ensure that computer users (liveware) are not susceptible to electrical shocks. 2 mks

1. Avoid dampness
2. Insulate cables
3. Let cables pass through trunks
4. Educate users not to touch Metallic parts

c) Most computer failures are caused by DUST / DUMPNESS and VIRUS 2 mks

d) Distinguish between the CPU and the System unit 1 mks

The CPU is the "Brain" of the computer, while the system unit houses the CPU and helps it in processing.

e) Describe the correct procedure that is normally used by computer users to start up computers 3 mks

1. Switch on power
2. Switch on the UPS
3. Switch on the screen
4. Switch on the chassis
5. Login

f) Describe the correct procedure that is normally used by computer users to shut down computers 3 mks

1. Click start then
2. Select shut down.
3. Switch off the monitor the UPS and power.

~ **END OF PRINTED PAGES** ~