

Name: Index no

School: Candidate's sign

Date:

451/1
COMPUTER STUDIES
PAPER 1
(THEORY)
JULY /AUGUST 2011
TIME 2 ½ HOURS.

NYAMIRA DISTRICT JOINT EVALUATION TEST
Kenya Certificate of Secondary Education (K.C.S.E.)

**Computer Studies
Paper 1**

INSTRUCTION TO CANDIDATES

- Write your name and index number in the spaces provided above
- This paper consists of **Two** sections A and B.
- Answer **ALL** questions in section A.
- Answer question 16 and any other **THREE** questions from section B.
- All answers should be written in the spaces provided on the question paper.

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SECTION	QUESTIONS	QUESTION'S ACTUAL SCORE	CANDIDATES SCORE
A	1-15		
B	16		
	17		
	18		
	19		
	20		
	TOTAL SCORE		

This paper consists of 8 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing

SECTION A (40 MARKS)
Answer All The Questions In This Section

1. State the computer generation where the following technology was used to develop them. (2mks)
(i.) Very large integrated circuits

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(ii.) Thermionic valves (vacuum tubes)

.....

(iii.) Transistors

.....

(iv.) Integrated Circuits

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2. Explain the trends in micro-computers technology in relation to physical size. (3mks)

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.....

.....

3. Classify the following keyboard characters (3mks)

(a.) A,B,C..... Z

.....

(b.) 0, 1,2,3,4.....9

.....

(c.) F1F12

.....

(d.) Home, End, PageUp, Arrow keys

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(e.) Ctrl, Shift, Alt

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(f.) Del, Insert

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4. Describe **three** functions performed by the processor (3mks)

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5. Explain **four** computer laboratory measures that are meant to protect the users (4mks)

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6. Explain **two** application areas of artificial intelligence (2mks)

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7. Explain **four** paragraph formatting features (4mks)

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8. List **four** signs of a computer system invaded by a virus (2mks)

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9. Explain **three** functions of an operating system (3mks)

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10. Describe **four** disk management tools (2mks)

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11. Differentiate between the following terms as used in word processing (3mks)

(a.) DropCap and Case

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.....

(b.) Superscript and subscript

.....

.....

(c.) Indent and tab

.....

.....

12. Differentiate between computer aided learning (CAL) and computer aided instructions (CAI) as applied in educational systems (2mks)

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.....

13. Explain the following errors as displayed in a spreadsheet cell (2mks)

(a.) #####

.....

(b.) ## NAME!

.....

(c.) ## NUM!

.....

(d.) ##DIV/0!

.....

14. Differentiate between the following (4mks)

(a.) System software and application software

.....

.....

(b.) In house developed and off-the-shelf

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.....

15. List **two** types of special purpose memories (1mk)

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SECTION B (60 MARKS)
QUESTION 16 IS COMPULSORY

16. Madelene Cooperative Society pays 4% interest on shares exceeding kshs. 20,000 and 2% on shares that don't meet the target. However no interest is paid on deposits in the members bank A/C (15mks)

Required

Design a pseudocode and a flow chart that will

- (a.) prompt the user for shares and deposit of a particular member
- (b.) Calculate the interest and total savings
- (c.) display the interest and total savings on the screen for a particular member

17. (a.) Explain the following terms in reference to the network (4mks)

(i.) Multiplexing and Demultiplexing

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(ii) Simplex and half duplex transmission

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(b.) Explain **three** types of physical network topologies (6mks)

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(c.) Describe **three** duties of chief programmer (3mks)

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(d.) List any **four** ICT related degree programmes offered at the Universities (2mks)

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18. (a.) Distinguish the following in reference to programming principles (4mks)

(i) Compiler and an interpreter

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.....

(ii) Source code and object code

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.....

(b.) Perform the following number conversions

(i) 122_{10} to Hexadecimal (2mks)

(ii) 20.2_{16} to decimal (2mks)

(iii) Subtracting $27 - 5$ using two's complement (3mks)

(c.) Describe **four** examples of Third Generation Languages (**3GLS**) (4mks)

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.....

19. (a.) What is feasibility study in reference to system development (1mk)

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(b.) State **two** application areas of simulation (2mks)

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(c.) Describe the **three** types of system changeover that may be applied during system implementation (6mks)

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(d.) Explain any **three** circumstances that necessitate the development of a new information system (6mks)

20. (a.) Explain **three** components of expert systems. (6mks)

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(b.) Highlight **two** types of job opportunities available in the field of computer hardware (2mks)

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(c.) List any **three** internet service providers in Kenya (3mks)

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(d.) Describe any **four** internet services (4mks)