

Name:

School:.....

Adm No.

451/1

COMPUTER STUDIES

Paper 1

July / August 2014

2 ½ Hours

MMS JOINT EXAMINATION 2014

Kenya Certificate of Secondary Education (K.C.S.E)

451/1

COMPUTER STUDIES

Paper 1

July / August 2014

2 ½ Hours

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided above.
- Sign and write the date of the examination in the spaces provided above.
- Answer all the 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.

For Official Use only

Section	Question	Candidate's Score
A	1 – 15	
B	16	
	17	
	18	
	19	
	20	
TOTAL SCORE		

This paper consists of 12 printed pages

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

SECTION A (40 MARKS)

Answer ALL the questions in this section in the spaces provided

1. Define the following

(i) Information (1mk)

.....
.....

(ii) Information Technology. (1mk)

.....
.....

(iii) Information systems. (1 mk)

.....
.....

2. Distinguish between the following pairs of terms:-

(i) Assemblers and compilers. (1mk)

.....
.....

(ii) Source code and object code. (1mk)

.....
.....

3. Differentiate between LPT ports and USB ports as used in Computer Printers. (2mks)

.....
.....
.....
.....

4. Explain why the following are harmful to a computer.

(i) Magnets (1mk)

.....
.....

(ii) Water (1mk)

.....
.....

5. State four ways of minimizing the effects of radiation from the display screens. (2mks)

.....
.....
.....
.....

6. Digital village project is a new project in Kenya, State the services to be provided by digital village. (3mks)

.....

.....

.....

.....

.....

.....

.....

7. a) State any two factors one would consider when selecting any data output device.(1mk)

.....

.....

b) Input devices can be categorized according to how they are used to enter data namely keying devices, pointing devices, scanning devices, speech recognition devices and other digital devices. Give two examples each of the following devices.

- (i) Scanning devices. (1mk)

.....

.....

- (ii) Other digital devices. (1mk)

.....

.....

- (iii) Pointing devices. (1mk)

.....

.....

8. a) Distinguish between ROM and RAM primary memories. (2mks)

.....

.....

.....

.....

- b) State two disadvantages and two advantages of primary memory. (2mks)

.....

.....

.....

.....

9. Distinguish between the following pairs of terms;

a) Data privacy and data security

(1mk)

.....

.....

b) System software and application software.

(1mk)

.....

.....

10. Discuss the future trends in ICT regarding automated production.

(3mks)

.....

.....

.....

.....

.....

11. a) State two advantages of scripting programming.

(1mk)

.....

.....

.....

.....

b) Differentiate between pseu-code and data flow diagrams.

(2mks)

.....

.....

.....

.....

12. Explain the following terms as used in desktop publishing

a) Editing tools.

(2mks)

.....

.....

b) Formatting tools

(2mks)

.....

.....

13. List any two responsibilities of information system managers.

(2mks)

.....

.....

.....

.....

14. Explain the importance of internet services to our society. (2mks)

.....

.....

.....

.....

15. State any four security control measures that can be taken to detect and protect computer systems against computer crimes. (2mks)

.....

.....

.....

.....

SECTION B (60 MARKS)

Answer question 16 and any other three questions from this section.

16. a) List two examples of:

(i) third generation languages (2mks)

.....

.....

.....

(ii) Object oriented languages. (2mks)

.....

.....

.....

b) Draw a flowchart that can be used to accept marks of 40 students in a class in three subjects and calculate the average mark then print the results. (6mks)

c) Write a pseudocode for the above process.

(5mks)

17. a) Distinguish between guided and unguided transmission media and give one example of each. (3mks)

.....

.....

.....

.....

.....

b) State two functions of Hubs.

(2mks)

.....

.....

.....

.....

c) Explain two different ways in which computers can enhance communication in Kenya today. (4mks)

.....

.....

.....

.....

.....

.....

.....

d) State and explain how the benefits of technology were not effectively used during the 2007 general elections. (6mks)

.....

.....

.....

.....

.....

18. (i) Differentiate between BCD and EBCDIC codes as used in symbolic representation in computers. (4mks)

- (ii) State one advantage and one disadvantage of using multi-processing. (2mks)

- (iii) State a situation where multi-processing would be appropriate. (1mk)

- (iv) Describe four ways in which computers can be used in education. (8mks)

19. Many organizations have audit controls in their computer systems that track which programs and servers were used, which files were opened, number of attempted logons and so on to ensure the protection of software and data. This creates an audit trail.

a) (i) What is an audit trail? (1mk)

[www](#)

(ii) List and explain three other security measures that are used to detect and protect software and data from computer crimes. (6mks)

USE Past p.

b) What is a worm and how can it be controlled. (2mks)

.....

.....

.....

.....

c) Explain the three data processing methods. (6mks)

[illegible]

20. a) Distinguish between the following sets of terms as used in spreadsheets

(i) Worksheet and workbook.

(2mks)

.....

(ii) Filtering and sorting.

(2mks)

.....

b) State one way in which a user may reverse the last action taken in a spreadsheet package.

(1mk)

.....

c) The following is a sample of a payroll. The worksheet row and column headings are marked 1,2,3..... and A,B,C..... respectively.

	A	B	C	C	D	E	G	H
1	NAME	HOURS WORKED	PAY PER HOUR	BASIC PAY	ALLOWANCES	GROSS PAY	TAX DEDUCTION	NET PAY
2	KORIR	12	1500					
3	ATIENO	28	650					
4	MUTISO	26	450					
5	ASHA	30	900					
6	MAINA	18	350					
7	WANJIKU	22.5	500					
8	WANYAMA	24.5	250					
9	OLESANE	17	180					
10	MOSETI	33	700					
TOTALS								

Use the following expressions to answer the questions that follow

- Basic pay = Hours worked x pay per hour
- Allowances are allocated at 10% of basic pay
- Gross pay = Basic pay + allowances
- Tax deductions are calculated at 20% of gross pay.
- Net pay = Gross pay – tax deductions.

Write formulae using cell references for the following cells:

(i) D2 (1mk)

.....
.....

(ii) E4 (1mk)

.....
.....

(iii) F10 (1mk)

.....
.....

(iv) G7 (1mk)

.....
.....

(v) H5 (1mk)

.....
.....

(d) (i) State three ways of moving round a page in Desktop Publishing window. (3mks)

.....
.....
.....
.....
.....
.....
.....

(ii) State two ways on how Information and Communication Technology (ICT) can be used to reduce the spread of HIV/AIDS. (2mks)

.....
.....
.....
.....
.....
.....

For More Free KCSE Past papers Visit www.freekcsepastpapers.com