

451/1
COMPUTER STUDIES
(Theory)
Paper 1
Time: 2½ Hours

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

COMPUTER STUDIES
Paper 1
Time: 2½ Hours

INSTRUCTIONS TO CANDIDATES

- *This paper consists of TWO sections A and B*
- *Answer all questions in section A.*
- *Answer question 16 (Compulsory) and any other THREE questions in section B*
- *All answers should be written in the spaces provided in the question paper.*

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Section	Question	Candidate's score
A	1 -15	
B	16	
	17	
	18	
	19	
	20	
Total score		

SECTION A (40 MARKS)

Answer all Questions in this section in the spaces provided

1. Differentiate between Core 2 Duo and Quad Core processors in terms of internal architecture (2mks)
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2. (a) Explain why Gas Plasma displays are preferable to LCD monitors in entertainment and social places(1mk)
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(b) State **three** advantages of LED over incandescent and fluorescent illuminating devices. (3mks)
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3. Most distributions of Linux operating system are available to users under General Public Licence (GPL)
(a) Explain the meaning of GPL (1mk)
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(b) State **four** examples of Linux distributions available under GPL (2mks)
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4. Differentiate between compatibility and interoperability in relation to computer software and hardware.(2mks)
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5. (a) Define the term “system registry” (1mk)
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(b) State **three** causes of system registry failure (3mks)
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6. Explain how you would unfreeze a computer running windows which has stopped responding to commands (3mks)
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7. List **four** circumstances under which a user may use the Save As Command instead of the Save Command (2mks)
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8. State **four** problems that may occur during printing and how to solve them. (4mks)
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9. Highlight **three** Acts of Parliament or laws that govern the use of ICT in Kenya (3mks)
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-
10. Work out the following
- (a) $1110.101_2 - 101.01_2$ (2mks)
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- (b) Convert EFE_{16} into decimal form (2mks)
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11. State **four** operations you would undertake to safeguard data integrity (2mks)
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-
12. (a) What is system implementation (1mk)
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-
-
-
- (b) State **three** activities that are done during system implementation (3mks)
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13. Differentiate between a router and a gateway. (2mks)
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14. Define the following terms (2mks)
(a) Teletext:
.....
(b) Videotext:
.....

15. List **three** types of job opportunities that are available in the field of computer hardware . (3mks)
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SECTION B (60MKS)

Answer question 16 and any other three questions from this section

16(a) Design a flowchart for a simple program that can be used to categorize people according to age. If the person is above or equal 18 years, output “Adult” otherwise output “Young” (8mks)

(c) Electronic mail (E-mail) is very popular. Explain how you would prepare and send a message using e-mail. (3mks)

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18.(a) Explain how you can defend your files from the following risks (8mks)

(i) Fire in the computer

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(ii) Hackers

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(iii) Virus attack

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(iv) Disgruntled ex-employees

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(b) Differentiate between private data and confidential data (4mks)

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(c) List **three** sources of viruses (3mks)

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19.(a) Describe the following careers in the computing field (3mks)

(a) Computer Engineers

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(b) Software Engineers

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(c) Computer Technician

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(b) Identify any **three** duties of an information system manager (3mks)

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(c) Giving an example, mention **three** categories of places where you can advance your computer skills after sitting for your K.C.S.E (3mks)

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(d) Mention any **four** formatting features used in Ms Word Application (3mks)
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(e) Define the term electronic spreadsheet (1mk)
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(f) Explain the following terms as used in MS Excel spread sheet package (3mks)
(i) Range
.....
(ii) What if analysis
.....
(iii) Automatic recalculation
.....

2.0(a) Compute the value of x in the following expressions (4mks)
(i) $24.35_{10} = X_2$

(ii) $6AB_H = X_{10}$ (2mks)

(b) Using twos complements compute the following using 8 bits (6mks)
 $20_{10} - 25_{10}$

(c) Write these abbreviations in full text (3mks)
(i) BCD
(ii) EBCDIC
(iii) ASCII