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**KENYA NATIONAL EXAMINATION COUNCIL  
REVISION MOCK EXAMS 2016  
TOP NATIONAL SCHOOLS**

**MOI GIRLS HIGH SCHOOL  
COMPUTER STUDIES  
PAPER 1**

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# MOI GIRLS HIGH SCHOOL – NAIROBI KCSE TRIAL AND PRACTICE EXAM 2016

451/1

COMPUTER STUDIES

(Theory)

Paper 1

Time: 2<sup>1</sup>/<sub>2</sub> Hours

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

## 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)  
(b) What is the difference between looping and selection. (2mk)

- (c) Name the stage of program development cycle when: (2mks)
- (i) A user guide would be written
  - (ii) A programmer dry-run the code
  - (iii) System charts would be drawn
  - (iv) Staff training is done
17. A school has decided to network its computers so that it can distribute information over a local intranet. The school also intends to connect the local network to the internet.
- (a) Describe three different topologies that could be used to network the computers. (6mks)
  - (b) The various services are to be provided by servers. Briefly describe the services provided by (6mks)
    - (i) Print server
    - (ii) Internet server
    - (iii) Intranet server
  - (c) Electronic mail (E-mail) is very popular. Explain how you would prepare and send a message using e-mail. (3mks)
18. (a) Explain how you can defend your files from the following risks (8mks)
- (i) Fire in the computer
  - (ii) Hackers
  - (iii) Virus attack
  - (iv) Disgruntled ex-employees
- (b) Differentiate between private data and confidential data (4mks)
- (c) List **three** sources of viruses (3mks)
19. (a) Describe the following careers in the computing field (3mks)
- (a) Computer Engineers
  - (b) Software Engineers
  - (c) Computer Technician
- (b) Identify any **three** duties of an information system manager (3mks)
- (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)
- (d) Mention any **four** formatting features used in Ms Word Application (3mks)
- (e) Define the term electronic spreadsheet (1mk)
- (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

g only the Student's Name, Student's Surname and

Student's Date of birth

(3mks)