KENYA NATIONAL EXAMINATION COUNCIL
REVISION MOCK EXAMS 2016
TOP NATIONAL SCHOOLS

MOI GIRLS HIGH SCHOOL NAIROBI
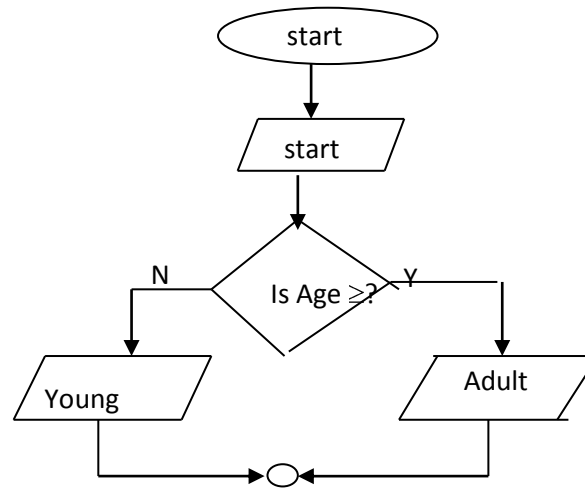**COMPUTER STUDIES**
PAPER 1
MARKING SCHEME

MOI GIRLS HIGH SCHOOL - NAIROBI KCSE TRIAL AND PRACTICE EXAM 2016
COMPUTER STUDIES PAPER ONE
MARKING SCHEME

1. A core 2 duo processor contains two processors contains two processors or cores in a single silicon chip, Quad core has four processors on a single chip.

2. (a) Images displayed in gasplasma do not suffer from angle distortion
   (b) (a) low power requirement
   (b) High efficiency
   (c) long life

3. (a) Means that the license to the software is freely made available to any interested user at no fee.
   (b) Ubuntu, Fedora, Susse and Red hat

4. Compatibility, refers to ability to use software without modification
   Interoperability, refers to ability of software to work across other platform,

5. (a) System registry is windows database that keeps details about programs installed in a computer
   (b) Corrupted operating system
   Hard disk failure
   Infection by malware such as worms

6. Pressing Ctrl + Alt + Del keys during booting

7. When saving a document
   For the first time
   In a new location
   Different file format
   With a new name

8. Print out of paper
   Paper jam
   Printer not on
   Publication overflows the margin

9. Science and technology act cap 250 of 1997
   Kenya broadcasting corporation act of 1988
   Kenya communication act of 1998

10. 1110101_2
    $\underline{101.010_2}$
    $\underline{1001.011_2}$
    (b) $EFE_{16} = 3838_{10}$

11. Control data access both physically and electronically
    Provide users with easy to use data input mechanisms
    Use data detection and correction measures
    Use antivirus software to protect data from being corrupted

12. (a) It is the actual delivery and installation of the system the system for use in the day to day operating system environment for the users to start using it.
    (b) File conversion, staff training, and changeover

13. Router interconnects different networks and directs different data packets
    Gateway provides access to wide area network or internet

14. (a) Teletext, news and information is provided on TV screen to subscribers
    (b) Video text provides two way communication and used in reservation systems

15. Computer technician
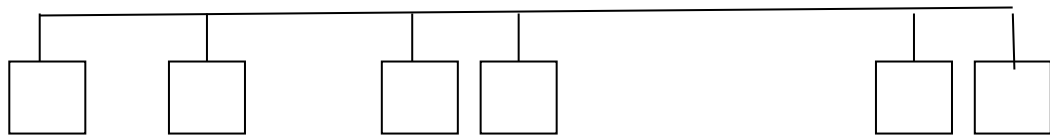   Computer engineer
    Computer programmer

16. a

(b) Looping –condition is tested at end of loop
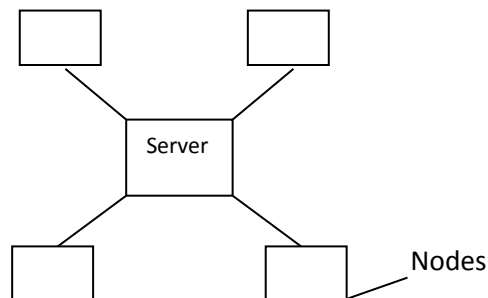   Selection-condition is tested at beginng
©   (i) Documentation
      (ii) Testing
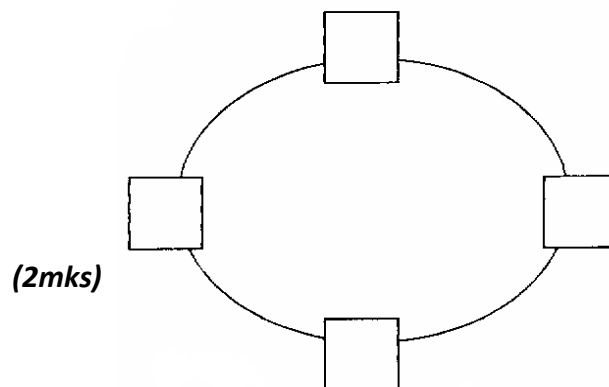   (iii) design
      (iv) Implementation

17.   (a) Bus

correct drawing & explanation = (2mks)

(ii) Star

Correct drawing and explanation (2mks)

(iii) **Ring**

(2mks)

(2mks)   correct   drawing   and

explanation

(b) (i) **Print server** – allows user of the network to share the purses, maintains a print queue and ensures that print outs from different users do not get mixed up. *(2mks) for correct explanation*.

(ii) **Internet sever** – Will connect to the internet through an ISP. Will deal with request for information from the www.

(iii) **Intranet sever**. Will hold web pages that can be accessed by the users: Local iformation that the teacher wish to available to students will be placed there.*(2mks) for correct explanation*

© An editor or word processor is used to prepare the message. The email address of the receiver is added and the message is sent.

Detailed explanation on e-mail writing is required and can earn a student full marks

18. (a) (i) fire in the computers – Take regular backups and store them away from the computer.

(ii) Hacker – Use / employ passwords to access the system. (2mks)

(ii) Virus attack – Virus checker (antivirus) should be installed and update regularly

(iv) Disgrantled ex employees – passwords locking the computer room (2mks)

(2mks) for correct explanation

(b) **Private data** / information that belongs to an individual and is not accessed by or disclose to a person unless with direct permission from the owner. (2mks)

Confidential data: - Data / information held by a government or organization about people can be see without necessarily informing the owner.

(c) **Sources of virus**
(i) Contact with contaminated systems
(ii) Pirated software
(iii) Free ware and shareware
(iv) Updates of software and distributed via networks.

19. (a) (i) Computer engineers – This is a person who is skilled in designing and developing computer components such as storage devices and other electronic components. (1mk)

(ii) Software Engineers – This is a person who is skilled in software development and technical operation of a computer hardware. (1mk)

(iii) Computer technician – These are skilled persons who maintain, upgrade and repair computers to ensure that all the devices are in good working condition (1mk)

(b) Duties of an information system manager
- make sure that all tasks in IT department are done correctly and on time
- Preparing budgets for the departments
- Keeping the department inventory records up-to-date
- Managing the human resource within the department *(Any 3 x 1)3mks*

(c) (i) Universities – Kenyatta, Nairobi, JKUAT, Egerton Universities
(ii) Polytechnics – Kenya, Mombasa, Eldoret, Kisumu poly
(iii) College – Institutes e.g. Rift valley and private colleges etc *(1x3)*

b) Formatting features
-Changing fonts (type, style, and size)
-Changing text colour
- Underlining
-Bolding

-Italising $(^1/_2 \times 4)$ *(2mks)*

e) Defn. of **electronic spreadsheet**
   - A electronic spreadsheet is application software consisting of series of rows and columns that form cells and are used for the manipulation of numeric data.
   (1mk)

(f) (i)   Range
   - A range is a rectangular arrangement of cells specified by the address of its top left bottom right cells, separated by a colon (:) e.g. (Al: B8)   *(1mk)*

(ii) "What if" **analysis**
   - This involves changing the value of one of the arguments in a formula to see the difference the change would make on the results of the calculation

(iii) Automatic recalculation
   - This is the feature in electronic spreadsheet which automatically adjusts the result of a formula if the values in worksheet are changed.   *(1mk)*

20.   (i) 24; $35_{10} = x_2$

2		24	R		0.35 x 2 = 0.70	
2	12	0			0.70 x 2= 1.40	copy down wards = 01011_2
2		6	0√		0.40 x 2 = 0.88	
2	3	1			0.80 x 2 = 1.60	
2	1	1			0.60 x 2 = 1.20	
	0				0.20 x 2 = 0.40 √	Repetition of the previous to

ignored

   $= 1100_2$√

   0.40 x 2 = 0.80
   0.80 x2 = 1.60
   0.08 x 2 = 1.60

   $= 1100.01011_2$√1

(ii) 6 $AB_H = x10$

6	A	B
$(6 \times 16^2$	10×16^1	11×16^0

   6 x 256 + 10 x 16 + 11 x 1
   1536 + 160 + 11   } √ 1mk
   $= 1707_{10}$ (1mk) – Award 0 if no radix 5.

(iii) 20

2			20	R 2		25	R
2	10	0		2	12	1	
2	5	0 2	6	0			
2	2	1 2	3	1			
2	1	0 2	1	1			
	0	1			0	1	

00010100_2 √ 1 $= 00011101_2$√

One's compliment of -25 = 11100010 √ 1
Two's compliment of – 25 $\underline{1 + √ 1}$
                         11100011√ 1
                   00010100
                   11100011 +
                   11110111
                   $= 11110111_2$√ 1