

NAME..... Center/Index No.....

Signature.....

840/1

COMPUTER STUDIES

Paper1

July/August 2011

# MARKING GUIDE

2½ Hours

JINJA JOINT EXAMINATIONS BOARD

Uganda certificate of Education

COMPUTER STUDIES

Paper 1

2Hours 30 Minutes

## INSTRUCTIONS TO CANDIDATES:

Write your name, Signature, Centre and Index number in the Space provided above.

This paper consists of three sections A, B and C.

Section A contains 20 compulsory objective type question. The correct alternative A, B, C or D must be written in the box provided on the right hand side of each question.

Section B consists of Six Compulsory Structured questions.

Answers to Section B must be written in the space provided in the question paper.

Section C Contains three essay questions.

Answer only one. Answers to section C must be written in the sheets provided.

**For examiners' use only**

MCQ	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	TOTAL

### Section A (20 Marks)

1. Which of the following is an application soft ware?  
A. Computer games  
B. Windows  
C. COBOL  
D. Unix.  

A
2. The mechanical era of computer evolution can best be characterized by.....  
A. Programming languages  
B. Multics  
C. Leibniz calculators.  
D. Napiers Bones.  

C
3. Which of the following can be used when designing a web page?  
A. e-mail  
B. Hyper links  
C. Net work  
D. Slides.  

B
4. A..... is a language processor that translates the entire high level language into a machine language.  
A. Compiler  
B. Source Code  
C. Objective Code  
D. Bar Code.  

A
5. Files can be made smaller by compression, to make it easy for them to be transferred between computers. Which of the following utilities can be used?  
A. jpeg  
B. gif  
C. pdf  
D. WinZip  

D
6. Which of the following can be an e-mail address for Ms. Matovu?  
A. Matovu.yahoo.com  
B. Matovu@yahoo.com  
C. Matovu@yahoo.com  
D. Matovu@yahoo.com  

C
7. The process of transferring information from a remote computer to a local storage is called.....  
A. Saving  
B. Retrieving  
C. Down loading  
D. Uploading.  

C

8. As used in Ms word, what is a gutter margin?  
A. Margin added to the out side of the page when printing.  
B. Margin added to the binding side of the page when printing.  
C. Margin added to the right side of the page when printing.  
D. Margin added to the left side of the page when printing.
9. The main purpose of the registry is to.....  
A. Maintain a database of configuration settings of windows  
B. Keep a record of frequently accessed pages.  
C. Search for the requested pages from a server.  
D. Send back client requests from a net work server.
10. A field or combination of fields that uniquely identify each record in a table is called.....  
A. Foreign Key.  
B. Master Key.  
C. Nominal Key.  
D. Primary Key.
11. The slide sorter facility function in a presentation soft ware .....,  
A. Sets the slide show running.  
B. Presents a number of slides for arranging.  
C. Formats and edits slides.  
D. Adds Color and blank slides.
12. ..... is a characteristic of the second generation computers.  
A. Integrated circuits.  
B. Vacuum tubes  
C. Transistors  
D. Large scale Integrated circuits.
13. The type of soft ware that can be used to request a specific resource from the server is.....  
A. Client soft ware  
B. System soft ware  
C. Server soft ware  
D. Browser.
14. Selection of adjacent cells in a spread sheet is called.....  
A. Blocking.  
B. Ranging.  
C. Gridding.  
D. Formatting.
15. The power of the data base lies in their ability to .....

B

A

D

B

C

A

AB

- A. Store historical data
- B. Use unplanned and externally generated data.
- C. Serve as physical system in an organization.
- D. Be queried and manipulated to produce information.

D

16. The following are output devices except.....
- A. LCD
  - B. Digitiser
  - C. LED
  - D. Speakers.

B

17. .....is not a representation of a type of a net work topology.
- A. Mesh
  - B. Ring
  - C. Hub
  - D. Bus

C

18. In a spread sheet, the feature that would enable you to arrange information in alphabetical order is.....
- A. Search.
  - B. Arrange.
  - C. Window-freeze
  - D. Sort

D

19. A computer scan disk.....
- A. Removes viruses from the hard disk
  - B. Erases temporary files from the hard disk.
  - C. Erases bad clusters from the hard disk.
  - D. Marks the bad clusters.

C

20. Which of the following is a set of computer category?
- A. Digital and analog
  - B. Analog and main frame
  - C. Super and digital
  - D. Main frame and digital.

A

### SECTION B: COMPULSORY (60 MARKS)

21. (a).What is meant by the following term?
- (i). e-mail: **Electronic mail is the transfer of electronic messages from one geographical location to another using computers and other computerized devices.**
- (ii).search engine.....
- .....
- (iii).telnet...**This is a protocol that allows a user to log on to a remote computer.**

*Accept:* This is a protocol that allows a local computer to establish a connection to another remote computer.

(b). State any two components of an e-mail message. (2 marks)

**Subject**

**e-mail address of recipient**

**Carbon copy**

**Blind carbon copy**

**Body**

**Signature of sender**

(c). Write the following in full: (3 marks)

**HTTP:Hyper text transfer protocol**

**ISDN: Integrated Services digital net work**

**IRC: Internet relay chat.**

22. (a)(i).What is a soft ware? (1 mark)

**A set of logical functions that tell the computer what to do.**

*Accept* The intangible component of a computer.

(ii). Give any three functions of the operating system soft ware . (3 marks).

**Manages the primary memory of a computer.**

**Manages files on secondary storage devices.**

**Performs all the housekeeping procedures that the user requests for.**

**Provides interface between the hard ware and soft ware.**

**It diagnoses the problems of soft ware and hard ware.**

**It manages the computer BIOS.**

(b). What is a utility program? (1 mark)

**It is a program that performs tasks related to the maintenance of data or a computer's health hard ware.**

(ii). State any three functions of a utility program (3 marks).

1. **Manages the disk by defragmenting and formatting.**

2. **Restores the backed up data.**

3. **Computer monitoring for virus activities.**

4. **Carry out data compression.**

5. **Recover damaged or deleted files.**

**6. Compresses of data by squeezing out the slack space.**

**7. Manages files.**

(c). Explain any two differences between a free ware and a share ware. (2 marks)

1. Free ware is free to be used and make copies of it, while share ware is a demo, to be used for only a short time and then be paid for.
2. Free ware, someone owns the right to determine who can make copies of it, while for shareware you can give away only an exact number of copies.

23. (a)(i)..What is cache memory? (1 mark).

**This is memory that holds recently used values.**

(ii). Explain the difference DRAM and SRAM in relation to computers. (1 mark)

**DRAM is dynamic random access memory and it is continuously refreshed while SRAM is static random access memory which is not refreshed.**

**SRAM is also fast to be accessed more easily than the DRAM. SRAM also draws more power compared to the DRAM.**

(iii). Why is computer main memory said to be volatile memory? (1 mark).

**Because it loses its contents when the computer is switched off.**

(b). (i). What is a bus as used in computer studies? (1 mark).

**This is an electronic path way that along which signals can be sent from one part of the computer to another.**

(ii). Explain any one difference between a data bus and a control bus. (1 mark).

**Data bus transfers data in both directions from the CPU to the memory and from the memory to the CPU, while Control bus carries signals that tell the memory if the CPU wants write or read memory.**

(c).What is a: (2 marks).

(i).byte :A byte is eight bits grouped together.

(ii). Control unit? This is a unit that extracts the instructions from the main memory, decodes them and executes them.

(d). convert the binary number 11000101 to decimal base and the decimal number 32 to binary base. (2 marks).

$$1 \times 2^7 + 1 \times 2^6 + 1 \times 2^2 + 1 \times 2^0$$

$$128 + 64 + 4 + 1 = 197$$

24. (a).(i). What is a data base? (1 mark)

**A data base is a collection of organized in such a way that allows access, retrieval and use.**

(ii) Differentiate between a data base and a data base management system. (2 marks)

**A database management system is a computer system that is used to manage the data, like Ms access while the data base is a collection of the data to be managed.**

(iii). Give two examples of a data base management system. (2 marks)

**Ms access, Micro soft Fox Pro, Oracle, Informix, Corel paradox, SQL, Sybase, Lotus approach, DBIII, DBIV, Claris file maker, Borlandpro etc**

(b). State any three advantages of using a data base management system over the manual data base. (3 marks)

1. Little space required to keep the data base.
2. There are fewer updating errors since the data is centralized.
3. There is cost reduction on data entry and data storage.
4. Easier to limit access to the data base because the security is centralized.
5. Can sort and retrieve more easily.

(c). What is a query? (1 mark)

**This is a question you ask about the data in your data base .**

(d). Give any two differences between a flat file and a relational data base. (2 marks)

Flat file data base	Relational data base
<b>Designed around a single table</b>	<b>Designed to incorporate multiple tables.</b>
<b>May contain many fields with duplicate data</b>	<b>No data duplication.</b>
<b>There is data dependency</b>	<b>No data dependency</b>
<b>There is data separation and Isolation. Each program manages its own data.</b>	<b>No Isolation and separation of data.</b>

25. (a). Explain the following terms as used in computer studies. (2 marks).  
(i). Command line interface: An Interface where the user provides the input by typing a command on the key board and the computer provides the out put on the screen.

(ii). Graphical interface :An Interface that accepts inputs via input devices like key board, mouse

(b). Give one example of the operating system that uses: (2 marks)

(i). A command line interface. Ms DOS, Linux, Unix, OS/400.

(ii). Graphical interface: Windows NT, Windows XP, Windows 2000, etc

(c). (i). Define the term computer generation. (1 mark).

**Computer generations are the technological advancements that have taken place in the area of computers.**

(ii). What are the major characteristics that mark each of the generations that computers have under gone? (4 marks)

1. First...Use of vacuum tubes .
2. Second. Use of Transistors
3. Third: Use of Integrated Circuits.
4. Fourth: Use of very large Integrated Circuits.

(d). Differentiate between analog and digital computers. (1 mark)

**Analog computers are computers that process data in continuous form while digital computers are computers that process data given to them in discrete form.**

26. (a). (i). What is a web page? (1 mark)

**A page that contains information written in HTML code that contains text and links to other pages, files or part of the document.**

(ii). List any three qualities of a good webpage (3 marks)

**A good web site should:**

- **Have a feed back.**
- **Have navigation buttons.**
- **Have date of last updates**
- **Have links to other pages or part of the document.**
- **Have a web page title and brief summary about the page.**
- **Load quickly.**

- Have fewer graphics.

(iii) Explain why it is not good to have a lot of graphics on a web page. (1 mark)

**It affects the band width of the end user.**

**It reduces the down loading speed since graphics are very heavy.**

**Makes the page not look good therefore not carrying a humor.**

**Takes long to be uploaded.**

(iv). Identify any two precautions to be taken while designing a web page. (2 marks)

- Down loading speed.
- Number of hyper links to be included.
- Amount of text to be put on each page.
- The kind of back ground to be used.
- Numbers of pages and graphics to be included.
- The application program to be used.

(b). What is a tag as used in web page design? (1 mark)

**A tag is an html command.**

(ii) What is the use of a tag in web page design? (1 mark).

**Tags are used to control the content and appearance of an html document.**

(c). Mention one advantage of an optic fibre over the unshielded twisted pair. (1 mark)

**It is lighter.**

**It is faster in transmission since it uses light.**

**It is smaller.**

### **Section C (20 Marks)**

*Answer only one question from this Section. Answer to the question must be done on the answer sheets provided.*

27. Discuss the advantages and disadvantages of using internet over using the text book for learning. (20 Marks)
28. “Computers have done more harm than god to our culture” Discuss (20 Marks)
29. Explain the areas where total data security has been achieved and areas where it failed. (20 Marks)