

Marking guide

CAPPSIHA MOCK EXAMMINATIONS 2017

Uganda advanced certificate of education

Subsidiary ICT

Paper 1

(S850/1)

2 hours

INSTRUCTIONS TO CANDIDANTES

This paper consists of 20 questions

Answer all the questions

All answers must be written in the spaces provided in this question paper

1. (a) Differentiate between internet and World Wide Web?
(1Mark)

Internet is the global/world wide interconnection of computers or an international network of computers while World Wide Web (WWW) is an internet service that provides resources that can be shared by computers on the internet.

- (b) Explain any four requirements for one to connect to the internet.
(4 Marks)

- i. internet service provider (ISP)***
- ii. computer***
- iii. an account with the ISP***
- iv. communication device eg modem***
- v. network interface card***
- vi. web browser***

(A candidate should give the use of each)

2. (i) What is a computer laboratory? (1Mark)

- ***A computer lab is an organized room where computers are kept and used from.***

- (ii) List down any four devices used for maintaining computers in sound condition.
(4 Marks)

- i. Blower***
- ii. Brush***
- iii. Software CDs***
- iv. Overhead fan/ air conditioners***
- v. Protective covers***
- vi. Soap***
- vii. Water***
- viii. Wipers***

- i. Describe the steps one would take when saving a presentation file with file name **PAUL** in a folder created on the desktop. (5 Marks)

- i. First click on the office button/ file***
- ii. Select “save As”***
- iii. From the dialog box enter file name as PAUL***
- iv. Then select the location as desktop, then select the folder or click on new folder to create it.***
- v. Then select open and finally click on “save”***

- ii. (a) What do you understand by the term “removable storage”?

(1Mark)

This refers to external / secondary storage devices which are kept out of a computer system case such that they are removed from it after saving work on them.

- (b) Give two advantages and disadvantages of removable storage devices.

Advantages

(2Marks)

- i. They are used to transfer work from one computer to another***
- ii. They can be kept safe away from the computer.***
- iii. Keeps data safe even when the computer gets a problem***
- iv. Most of them are plug and play hence easy to use***
- v. They are portable***
- vi. They may act as backup storage***

Disadvantages

(2Marks)

- i. They transfer viruses from one computer to another***
- ii. They can easily be lost.***
- iii. They are expensive to buy and maintain***
- iv. Some may not easily be repaired once spoilt***

- iii. a. Briefly describe one way how ICT can be applied in each of the following areas. **(2 Marks)**

- i. Education:

- a. Through on line studies where people get degree from their computers***
- b. Educational research***
- c. Presentation of content to students using ICT tools like computers and projectors***
- d. ICT tools can be used as learning aids***
- e. Self learning tutorials***
- f. E-materials***

- ii. Health:

- a. They are used in keeping patient's records***
- b. They are used in monitoring patients***
- c. Carrying out medical tests***
- d. During diagnosing patients***
- e. Operation of patients***
- f. Medical research***
- g. Creating doctors' platforms***

b) Explain the following terms related to file transfer. (2 marks)

i. Copy

This is where part of a file is saved on the computer's clipboard and it can be pasted / replicated to another location, leaving the original file in its location

ii. Move

This is a feature where a file is removed from its original location, put on the clipboard of the computer and later put in another location

b. Give any one utility program responsible for transferring files. (1 mark)

File viewer, Dump utility, Merge utility, Copy utility

4. a. Write short notes on the following terms as applied in ICT. (2 Marks)

i. EFT: ***Electronic funds transfer (EFT) is the electronic exchange, transfer of money from one account to another, either within a single financial institution or across multiple institutions, through computer-based systems***

ii. Wi-Fi: ***This stands for wireless fidelity, it is a technology that allows an electronic device to exchange data or connect to the internet wirelessly.***

b) Write the names of the following gadgets used in ICT (03 marks)



External HDD

Track ball (Mouse)

Over head projector

5. Given the types of software in a table below and different tasks they can accomplish fill in the gaps. (5 marks)

| Task | Type of software that can be used |
|----------------------------------|-----------------------------------|
| <i>Creating documents</i> | Ms-Word |

| | |
|--|--|
| Presenting information in a conference | <i>Presentation software like Ms-power point.</i> |
| <i>Preparing budgets and other calculations</i> | Ms-Excel |
| Reading information on the internet | <i>Web browsers like internet explorer</i> |
| <i>Photo editing</i> | Adobe Photoshop. |

6. (a) i). Write ISP in full.

(1Marks)

Internet Service Provider

ii). State any two services offered by the ISPs

(2Marks)

- ***Providing internet access/connection to people***
- ***Providing IP address to people***
- ***Providing all internet services***
- ***Hosting websites***

(b). Explain two factors that leads to a slow down of the internet speed.

(2Marks)

- ***If heavy materials are transmitted over the internet***
- ***If they're very many users at the same time***
- ***Number of network data traffic. The higher the traffic the lower the speed.***
- ***Speed of computers being used***
- ***Bad weather conditions***
- ***The bandwidth of the network***
- ***Type of service provider***
- ***Effect of spyware / viruses***

9. (a) Give three services enjoyed by schools with networked computer Laboratories over those with stand alone computers .

(3Marks)

- i. ***Resources like printers can be shared hence minimize costs***
- ii. ***Easy communication***
- iii. ***Information sharing***
- iv. ***Maximum coordination among workers***
- v. ***Saves time since there is no need of moving from your work station to another for inquiry***

(b). state the function of each of the following in the process of establishing a network. **(2 marks)**

(i). Bridge: ***A device used to connect two separate Ethernet networks into one extended Ethernet. Bridges only forward packets between networks that are destined for the other network***

(ii). Firewall: ***Is software or hardware-based network security system that controls the incoming and outgoing network traffic based on applied rule set. A firewall establishes a barrier between a trusted, secure internal network and another network***

10. (a) Define the term computer virus? **(1 marks)**

This is malicious program designed by malicious people to destroy files and other programs on the computer.

(b). state two symptoms of a computer viruses. **(2 marks)**

- i. The computer speed reduce***
- ii. The computer starts freezing***
- iii. The computer restarts it's self***
- iv. Duplication of files***
- v. Files can be hidden***
- vi. Files and programs can be deleted***
- vii. Unusual messages and behavior on screen***

c) State any two software programs used for getting rid of the viruses. **(2 marks)**

- i. avast***
- ii. Avira***
- iii. Norton***
- iv. Dr. Solomon***
- v. AVG***
- vi. Kaspersky***
- vii. Smadv***
- viii. Panda cloud***
- ix. McAfee***
- x. Comodo***
- xi. PC tools antivirus***
- xii. Clamwin free***
- xiii. Malware bytes***
- xiv. Microsoft security essentials***

11. (a). Differentiate between hardcopy and softcopy (2 marks)

Hardcopy refers to print out that's on paper or any substance that can be touched and felt while softcopy output is the one in electronic form which is in the computer or on a storage device of a computer.

- (b). State two advantages of softcopy over hardcopy. (2 marks)

- i. Can be edited easily to any format you want.***
- ii. It is portable thus easy to store and transfer on a small media***
- iii. Soft copy can easily be transferred on a network without moving.***
- iv. Can even be stored online in space and it remains safe.***

- (c). state one device that can be used to convert hard copy into softcopy. (1 mark)

Scanner

12. (a). Distinguish between worm booting and cold booting? (2 marks)

Worm booting is the restarting of the computer which was originally on while cold booting is the starting of the computer from the wall socket which was originally off.

- (b). Describe three situations which may require a computer user to perform a worm boot. (3 marks)

- i. When the computer freeze while using it.***
- ii. After installing software***
- iii. After uninstalling a software***
- iv. After scanning the disk***
- v. When you meet a strange situation like opening what you can't close***
- vi. After installing hardware***

13. Sserubaale wants to start up his computer from the wall socket. Describe the step-by-step process His computer will take in order to show up the desktop. (5 marks)

- i. Pressing the power switch of the computer***
- ii. The computer first goes through a power on reset, where it supplies power to all the connected parts***
- iii. It goes to power on self test (POST) to check the availability of all the connected peripherals. Here it gives messages (audio or visual on screen) in case of any problem, and possible solutions.***

- iv. If no problem, it loads the operating system into the main memory.**
- v. It finally displays the screen and icons ie an interface between the user and the computer, ready for Sserubaale to use it.**

14. (a) Give any two examples of database management programs. **(2 marks)**

| | |
|---------------------------------|------------|
| - Microsoft access | SQL server |
| - Claris file marker pro | Progress |
| D-base | Ingress |
| Fox pro | Informix |
| Paradox | Oracle |
| Sybase | |

(b) Briefly explain three advantages of computerized database management over the manual database management systems. **(3 marks)**

- i. There is reduction of data redundancy**
- ii. There is enhancement of data integrity**
- iii. The program has data dependence**
- iv. There is improved data access**
- v. There is a reduction of costs through reduction in data duplication**
- vi. Easy to store**
- vii. Saves desk and shelf space**
- viii. Eases sharing of data**

15. Describe any two circumstances under which computers can be harmful to a human being. **(2 marks)**

- i. Prolonged use of computers may lead to fatigue**
- ii. The light from computer monitors harm the eyes**
- iii. The electromagnetic waves from the computers are sources of cancer**
- iv. Some people have become computer addicts and are mentally ill**
- v. Watching pornography**
- vi. Family neglect due to social media**
- vii. Wastage of time**

(b). Give three advantages of using computers rather than relying on nurses only in a hospital. **(3 marks)**

- I. Computers are more accurate than human beings**
- II. Computers do not get tired so can work 24-7 unlike nurses**
- III. Computers are cheaper than human beings**
- IV. Easy and accurate in managing medical databases**
- V. Efficient in carrying out physiological monitoring.**
- VI. Computers cannot be bribed**

16. List down three advantages and two disadvantages of using electronic spreadsheets.

Advantages

(3 marks)

- i. It is easy to make changes in data in a spreadsheet*
- ii. The rest of the work in the cells is recalculated on auto filling*
- iii. Operation is very fast due to the use of inbuilt functions and macros*
- iv. Calculations are always accurate given correct data and formulae*
- v. The data in the charts is automatically updated on update of the data*

Disadvantages

(2 marks)

- i. It requires thorough knowledge to use some of the inbuilt functions*
- ii. An error from one item can be carried on for all calculated and related data*
- iii. Without a computer, one cannot use a spread sheet*
- iv. There are various spreadsheet programs that may require different skills, so an expert in one may not be in the other*
- v.*

17. (a) Define the following terms as applied in DBMS

(3 marks)

- i. Primary key:*
This is a unique identifier of elements in a database
- ii. Record:*
This is a single row representing a single entry in a database.
- iii. Field:* ***This is a particular column that contains uniform entries in a database.***

(b). Give any two reasons as to why a company which has adapted to an electronic database management system should continue keeping the manual filling system.

(2 marks)

- i. It does not require computer skills among workers.*
- ii. It's cheap to run*
- iii. It is free from computer related risks*
- iv. It can provide a backup for the computer system*
- v. It can provide/capture the primary information to the computer system.*
- vi.*

18. Define the following terms as applied in ICT.

(3 marks)

i. Hacking:

This is the intelligent illegal access of some ones computer system or website after modifying the access rights or password or codes

ii. Cracking:

This is the act of illegally entering into some ones computer system by removing the password or this is the act of breaking using gueswork

Piracy: ***This refers to unauthorized duplication and use of computer software***

(b). Give any two ways of preventing software piracy in developing countries like Uganda. (2 marks)

- i. ***Use of code key***
- ii. ***Use of license keys***
- iii. ***Enforcing copyright laws***
- iv. ***prosecute the pirates***

19. (a). Computer software can be classified into two major classes. Briefly describe them. (2 marks)

- i. ***System software: This is the branch of software basically designed for general operation of the computer.***
- ii. ***Application software: This is the software designed for specific tasks of the user.***

(b). Briefly explain any three functions of the operating system. (3 marks)

- i. *Loading of programs and data files from the secondary storage to the memory when required.*
- ii. *Control of hardware resources of a computer by allocating the use of peripheral devices for example input, output, storage and processing devices.*
- iii. *Protects hardware, software and data from improper use.*
- iv. *Controls and interprets keyboard, mouse and other inputs.*
- v. *Controls the computer systems security for example by monitoring the use of passwords.*
- vi. *It provides a computer user with an interface that enables him or her to easily manage, control and operate a computer.*
- vii. *It checks whether hardware is working properly, equipment malfunctioning and displays error handling and correct messages.*
- viii. *Keeping track and furnishing a complete record of all that happens during the processing.*
- ix. *Responsible for starting a computer*

- x. *Provides a means to establish web connections and some include a web browser and e-mail program.*
- xi. *Responsible for administering security where administrators establish user accounts that require a user name and password to access a computer system.*
- xii. *Responsible for managing and monitoring directories and files stored and the disks.*

20. List any five advantages of a monitor over a printer.

(5 marks)

- i. ***A monitor can allow a user make corrections before giving the final output.***
- ii. ***Monitor's cost of maintenance is low compared to that of the printer***
- iii. ***The monitor is cheaper than a printer***
- iv. ***Most monitors are plug_and_play yet most printers require software installation which is tedious.***
- v. ***Monitors give their output faster than printers.***

END