



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

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MAY – AUGUST 2021

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DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

REGULAR PROGRAMME

GS 102: COMPUTER LITERACY

Date: AUGUST 2021

Duration: 2 Hours

INSTRUCTIONS: 1. SECTION A [Answer 1- Compulsory]
2. SECTION B [Answer 2 Questions]

SECTION A

Question 1

(a) Define the following terms:

- (i) Computer
- (ii) Computer network
- (iii) Byte
- (iv) Computer virus
- (v) Software

[5 Marks]

(b) Write the following acronyms in full.

- (i) ROM
- (ii) RAM
- (iii) EPROM
- (iv) NIC
- (v) ENIAC

[5 Marks]

(c) List four (4) differences between the Main Memory (RAM) and the Hard Disc.

[4 Marks]

(d) Give a brief history on the evolution of computers.

- (e) Giving two (2) examples of each, explain what input and output devices are. **[5 Marks]**
- (f) Outline five (5) uses of the Internet. **[6 Marks]**
- [5 Marks]**

SECTION B

Use the scenario below to answer the question 2.

Scenario

Ms. Angel, the school librarian is not very technically inclined but is determined to make better use of the computer facilities at her disposal in the media centre and library. She will, however, need a lot of tender, patient, loving care and a healthy dose of advice from you!

Question 2

Ms. Angel recently purchased a new PC for the library with the following specifications:

- Intel Pentium CPU 4.2 GHz
- 8 GB RAM
- 1 TB HDD
- 52x DVD drive
- Ergonomically designed optical mouse
- 104 Soft key Palm QWERTY Keyboard
- PS/2, USB, Parallel & Serial Ports
- 56 K Fax/modem

(a) The insurance company wants to know the following details:

- (i) The speed of the PC **(1 Mark)**
- (ii) How much memory it has **(1 Mark)**
- (iii) Data storage capacity **(1 Mark)**
- (iv) Processor type **(1 Mark)**

Write these down for Ms. Angel

[4 Marks]

(b) Ms. Angel has a lot of information backed up on CD. Will she be able to use this on this computer? Briefly explain your answer.

[2 Marks]

(c) Ms. Angel needs you to explain the specifications of the mouse.

- (i) What is the meaning and value of an 'ergonomically designed' mouse?

(ii) Also mention a typical health problem this type of mouse can help prevent.

4 Marks]

(d) Ms. Angel wants to know what these ports are all about.

(i) Explain what a computer port is.

(ii) Name two devices that would typically connect to one of the types of ports specified in the advert (write down the name of the port and the device).

[6 Marks]

(e) Ms. Angel wants to know if QWERTY is a well-known brand / manufacturer of keyboards. Explain the significance of the term QWERTY in this regard.

[4 Marks]

Question 3

(a) Ms. Smith spends many hours in front of her personal computer and is considering upgrading to a new monitor. She was given a quote on a 21" - 1024 X 768 pixel screen. Explain fully the significance of the following specifications:

(i) 21"

(ii) 1024 x 768 pixels

[4 Marks]

(b) List two advantages there would be in choosing a flat-screen monitor.

[4 Marks]

(c) A new printer is needed for the library. Briefly describe a situation for each of the following types of printers where the specific type of printer would be the best option:

(i) Laser

(ii) Dot-matrix

(iii) Ink-jet

[6 Marks]

(d) Outline six (6) differences between low-level language and high-level language.

[6 Marks]

Question 4

(a) Describe the following types of memories used in a computer system.

(i) Cache Memory

(ii) Main Memory

(iii) Secondary Memory

[6 Marks]

(b) Label the components of a computer system numbered below.



[7 Marks]

- (c) Every technology has its own merits and demerits. Discuss the merits and demerits of the Internet as a technology.

[7 Marks]

Question 5

- (a) Using suitable diagrams describe the following network topologies.

- (i) Bus topology
- (ii) Ring topology
- (iii) Star topology

[6 Marks]

- (b) You have been approached by your Parish Priest to advice on how they can make good use of a recently installed local area network. Describe five (5) uses of a Local Area Network (LAN) you would suggest to the parish priest.

[5 Marks]

- (c) Computer viruses are a major threat to the use computers. Describe five (5) types of virus that can infect your computer.

[5 Marks]

- (d) Describe the three (3) main categories of DVDs.