

GWANDA STATE UNIVERSITY



FACULTY OF LIFE SCIENCES

DEPARTMENT OF CROP SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE IN CROP SCIENCE

LCS 1105 INTRODUCTION COMPUTER APPLICATIONS

FIRST SEMESTER EXAMINATION

January 2021

This examination paper consists of 4 pages.

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: N/A
Examiner's Name: O. Munemo

INSTRUCTIONS.

1. Answer **ALL** questions in Section A.
2. Answer any **THREE** Questions in Section B. Each question in this section will carry 20 marks.
3. Do not open question paper until told to do so.

MARK ALLOCATION

| QUESTION | MARKS |
|-------------------------------|--------------|
| SECTION A | 40 |
| SECTION B | 60 |
| TOTAL ATTAINABLE MARKS | 100 |

SECTION A: ANSWER ALL QUESTIONS

1. Define the following :
 - a. Output device [2]
 - b. Computer network [2]
 - c. Operating system [2]
 - d. Utility software [2]
 - e. Computer [2]

2. Distinguish between the following:
 - a. System software and application software [4]
 - b. Mainframe computers and Super computers [4]
 - c. Read Only Memory (ROM) and Random Access Memory (RAM) [2]

3. State THREE (3) ways of how to categorise computer systems. [3]

4. With the aid of a diagram, briefly explain the information processing cycle of a computer for changing data into information. [8]

5. Calculate the decimal equivalent of 11010_2 . [2]

6. With increased use of computers it became important to move data from one computer to another quickly and efficiently. This, then, motivated the development of computer _____. [1]

7. In computer hardware, a _____ serves as an interface between the computer and other computers or peripheral devices. [1]

8. With _____ storage, data is recorded by making marks in a pattern that can be read back with the aid of light, usually a beam of laser light. [1]

9. A network _____ is a network security system that monitors and controls the incoming and outgoing network traffic based on predetermined security rules. [1]

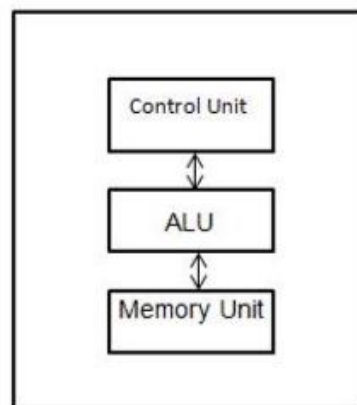
10. State THREE (3) primary benefits of networking computers. [3]

SECTION B: ANSWER ANY THREE QUESTIONS

11. The operating system in a computer includes a file management system to facilitate use of files.

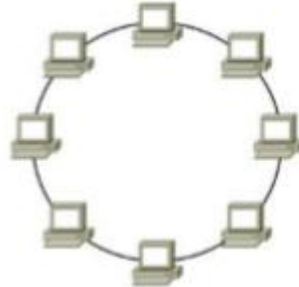
- i. What is a computer file? [2]
- ii. State and briefly explain 5 (five) file operations that a file management system would provide for users and processes. [10]
- iii. Databases have become part of our lives, explain any 3 (three) uses of databases. [6]
- iv. The sharing of files among users raises two kinds of issues, state the issues [2]

12. a. The most important hardware component of a computer system is the central processing unit (CPU). The following diagram shows the main components of a CPU.



- i. Explain the purpose of the arithmetic logic unit (ALU). [4]
- ii. State the function of the control unit. [2]

- b. The network manager wants to upgrade the computer computer network that is currently used in the computer laboratory. She has chosen the following network topology to be used:



- i. Identify the network topology that the network manager has chosen. [2]
- ii. Outline FOUR (4) advantages of choosing this topology [4]
- c. E-Commerce is often faster, cheaper and more convenient than the traditional methods of buying and selling goods and services. Briefly describe each of the following.
- i. e-commerce. [2]
- ii. Business-to-Consumer (B2C) [2]
- iii. Consumer-to-Consumer (C2C) [2]
- iv. Consumer-to-Consumer (C2C) [2]
13. a. It is important that respect is shown to other users when using computers. It is also essential that organisations who store data on people do so with due regard to the law
- i. Explain briefly what is meant by netiquette. [4]
- ii. In computer security Technology Alone Is Not a Panacea. Explain ? [6]
- b. The effects of computing technology on education can hardly be overstated. Discuss how computers have impacted on education. [10]
14. Computers and their applications have changed different sectors including agriculture. Discuss some of the uses of computers that have changed conventional methods in agriculture to improve productivity. [20]