



FACULTY OF COMMERCE

ECONOMICS DEPARTMENT

DIPLOMA IN BUSINESS MANAGEMENT

DIPLOMA IN ACCOUNTING AND FINANCE

DIPLOMA IN MONITORING AND EVALUATION

DIPLOMA IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT

FINAL EXAMINATION ASSESSMENT

BAM012 – INFORMATION TECHNOLOGY APPLICATIONS

Duration 3 hours

Date: October 2023

INSTRUCTIONS TO CANDIDATE:

1. **Section A** is compulsory with 15 multiple choice questions.
2. **Section B** is compulsory with case study-based questions.
3. Answer **ALL** questions in **Section C**
4. Each section has total marks indicated under section headings.
5. Beginning from **Section B**, answer each new question on a fresh page in the answer booklet.
6. You are not allowed to talk or make any unnecessary movements that can potentially disturb others in the examination room. Raise your hand to get assistance from the invigilators.
7. You are not allowed to go out of the examination room within the first hour and the last 15 minutes of the examination.

SECTION A

Answer all the questions in this section, each question carries TWO marks.

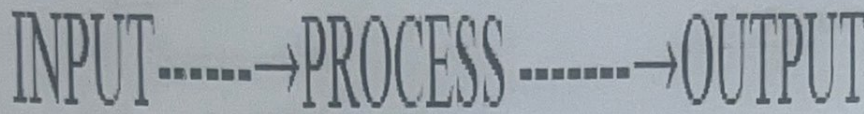
1. Physical things/objects that can be interconnected using Internet of Things (IoT) include the following except.....
 - A. Computing devices
 - B. Digital and mechanical machines
 - C. People and animals
 - D. Land

2. Which of the following is not a benefit of IoT?
 - A. Saves time: remotely locking and unlock doors and windows, saves time you would have needed to do it manually
 - B. Saves electricity: with smart thermostats
 - C. Provides peace of mind knowing and seeing your house is secure whilst you are not around
 - D. It is expensive to implement

3. Management information system is a system consisting of, machines, procedures, databases and data models, as its elements.
 - A. People
 - B. Houses
 - C. Land
 - D. Cars

4. Managerial function includes the following except.....
 - A. Planning
 - B. Organising
 - C. Staffing
 - D. Guarding

5. This is the elements of.....



- A. System
 - B. Management function
 - C. Information
 - D. Data
6. Which of the following is an importance of data visualisation.....
- A. Simplifying complex information and making it easy to understand
 - B. Data visualizations can be influenced by bias introduced during the data selection, pre-processing or visualization design stages
 - C. If there is too much data it may be difficult for the audience to extract the key message.
 - D. Certain visualizations, particularly those heavily reliant on colour or complex visual elements are difficult to access
7. The following are functions of the operating system except.....
- A. It monitors input and output of data
 - B. It directs traffic of data inside the computer, deciding what resources will be used and for how long. The resources includes time and tasks
 - C. Time management
 - D. Forgetting system procedures
8. Which of the following is not utility software?
- A. Screen saver software
 - B. Anti-virus
 - C. Uninstaller software
 - D. Microsoft PowerPoint
9. Application software is available as

- i) custom software
- ii) Public domain software.

Which one is correct?

- A. Both
- B. i only
- C. ii only
- D. None

10. The following are all definitions of a computer except.....

- A. A human that knows how compute mathematical calculations
- B. It is a machine having memory, mass storage, processor and input and output devices.
- C. It is a machine that carries out computations
- D. It is a machine that process data and information

11. Which of the following is ^{not} an example of a computer hardware?

- A. Mouse
- B. Monitor
- C. Antivirus
- D. Printer

12. The CPU consists of three parts, which are.....

- i) Control unit
- ii) Logic unit
- iii) Storage unit
- iv) Clouding unit

Which three are correct?

- A. i, ii and iii
- B. i,ii and iv
- C. ii ,iii and iv
- D. i,iii and iv

13. Blockchain does not rely on a central authority or intermediary to validate or store the data. This is a description of.....

- A. Consensus
- B. Decentralisation
- C. Smart contracts
- D. Cryptography

14. Which of the following is a disadvantage of Blockchain?

- A. Large size of the ledger – it requires a lot storage space and bandwidth to maintain the entire history of transactions
- B. Immutability – blockchain prevents data tampering within the network.
- C. Transparency – it allows any network member to verify data recorded into the blockchain.
- D. Censorship – it is free from censorship since it does not have control of any single party

15. The following are types of cloud computing except.....

- A. Software as a Service (SaaS)
- B. Private Clouds
- C. Public cloud
- D. Hybrid cloud

SECTION B (30 Marks)

Question number 16 to 21 is based on the article below. Read the article and answer ALL the questions in this section.

Edu-U College implements networking systems.

The following is a extract from the presentation given by Mr Jones at Edu-U college when they unveiled their plans to make use of networking systems to link their high school and tertiary education departments

“A computer network is a collection of computers and devices interconnected by communications channels that facilitates communication and allows sharing of resources and information among the interconnected devices. A computer network is usually made up of two types of computers referred to as Servers and workstation. There are different data transmission modes that can be used in a network. One principal of computer networking is that there must be system software that supports the incoming and outgoing of information”

16.1 Give Mr Thomas, the security man at ^{Edu-U college} ~~Savemore Supermarket~~ clarity on the difference between workstation computer and server. (4 marks)

16.2 What **five** principles of networking must be observed when implementing networking systems at Edu-U College? (10 marks)

16.4 What advantages would Edu-U college derive from networking the High School and tertiary departments (10 marks)

16.5 Edu -U College decided to use duplex and multiplex transmission modes in its network. Explain the difference between the two (6 marks)

SECTION C (40 Marks)

Answer all questions in this section.

17 Explain the following concepts in relation to **Blockchain technology**

- Decentralisation (2 marks)
- Consensus (2 marks)
- Smart contracts (2 marks)
- Cryptography (2 marks)
- Non-fungible tokens (NFTs) (2 marks)

18. Write notes on **private clouds** as they relate to **cloud computing**. (10 marks)

19. Discuss with practical examples, any **five** advantages of **artificial intelligence** (10 marks)

20. Explain any **five** components of **big data analytics**. (10 marks)

END OF EXAMINATION