

**EDUCATION-NEWS CONSULT**  
**OCT 2024 BECE HOME MOCK 1 (2025 BECE)**  
**COMPUTING**

**MARKING SCHEME**

**SECTION A - 40 MARKS**

1. C	11. C	21. D	31. D
2. C	12. C	22. A	32. D
3. C	13. A	23. D	33. D
4. D	14. D	24. D	34. C
5. C	15. C	25. A	35. B
6. D	16. A	26. D	36. A
7. D	17. C	27. B	37. D
8. D	18. B	28. D	38. B
9. C	19. C	29. A	39. A
10. A	20. C	30. B	40. B

**Use the figure below to answer the following questions that follows**

**1. i. Name the parts labelled 1 to 7**

- 1 – monitor
- 2 – Modem
- 3 – system unit
- 4 – mouse
- 5 – speaker
- 6 – printer
- 7 – keyboard

*1 mark each = 7 marks*

**ii. Name one function of each of the parts labelled 1 to 7**

- 1 – It is used to give a graphical display of the output from the computer
- 2 – A device that encodes digital computer signals into analogue telephone signals, allowing computers to communicate over a phone line
- 3 – It is the main unit of a desktop computer, consisting of the chassis and hardware
- 4 – an input device that is moved over a pad or other flat surface to produce a corresponding movement of the pointer on a graphical
- 5 – They are connected to the computer to generate sound
- 6 – A device that is attached to the computer to print texts or images onto a paper
- 7 – A set of keys used to operate a typewriter, computer, etc.

*1 mark each = 7 marks*

**iii. Name three places where you can use the part labelled 6**

- Public libraries
- Print and copy stores
- Shipping or courier services
- Your office
- Office supply store

*1 mark each × any 3 = 3 marks*

**iv. Group the parts labelled 1, 4, 5, 6 and 7 as input and output devices**

<b>Input devices</b>	<b>Output devices</b>
Keyboard	Monitor
Mouse	Printer

*1 mark each = 5 marks*

v. **State any other two peripheral devices you know that is not in the figure above**

- Microphone
- Joystick
- Webcam
- Flash drives

*1 mark each × any 2 = 2 marks*

• **a. Explanation of Interruption of Data**

Interruption of data refers to a situation where the flow or transmission of data is temporarily halted or disrupted. This can occur due to various reasons such as network failures, power outages, hardware malfunctions, or cyber attacks. Interruptions can result in incomplete data transfer, loss of information, and can affect the performance and reliability of data-dependent systems.

*5 marks*

a. **Uses of smart phones without explanation**

- i. Communication (calls, texts, emails)
- ii. Internet browsing
- iii. Navigation (GPS and maps)
- iv. Photography and videography
- v. Mobile banking and payments

*1 mark each × any 3 = 3 marks*

b. **Functions of sensors in robots:**

- a. Sensors allow robots to detect and perceive their environment, including obstacles, objects, and terrain features.
- b. Sensors provide feedback for navigation purposes, enabling robots to move autonomously and avoid collisions.
- c. Sensors provide real-time feedback on various parameters such as position, velocity, and orientation, enabling precise control of robot movements and operations.
- d. Sensors can identify and distinguish different objects or materials, crucial for tasks like sorting, picking, and assembly in industrial and logistical applications.
- e. Sensors monitor environmental conditions such as temperature, humidity, and air quality, which is essential for applications in agriculture, environmental monitoring, and hazardous environments.

*1 mark each × any 4 = 4 marks*

• **a. Explanation of types of human intelligence.**

i. Intelligence Quotient

Intelligence Quotient is a measure of a person's intellectual abilities relative to others. It is typically assessed using standardized tests designed to evaluate various cognitive skills such as reasoning, problem-solving, and understanding complex ideas.

*3 marks*

ii. Adversity Quotient.

Adversity Quotient refers to a person's ability to cope with adversities and challenges. It measures resilience and the capacity to persevere and remain motivated when faced with difficult situations.

*3 marks*

j. **Expected features of next generation computers.**

19. Quantum computing capabilities
20. Advanced artificial intelligence integration
21. Brain-computer interface (BCI)
22. Ultra-fast and energy-efficient processors

23. Enhanced augmented reality (AR) and virtual reality (VR) support

**1 mark each × any 3 = 3 marks**

**k. State three threats that cause data corruption.**

- Power surges or outages
- Malware or viruses
- Hardware failures
- Software bugs
- Human error during data entry or processing

**1 mark each × any 3 = 3 marks**

**• a. Benefits of using electronic spreadsheet Software.**

- Data organization and storage
- Automated calculations and formulas
- Data visualization through charts and graphs
- Easy data manipulation and analysis
- Improved collaboration and sharing capabilities

**1 mark each × any 3 = 3 marks**

**b. Definition of the following as used in computer network.**

Hubs:

Hubs are basic networking devices that are used to connect multiple ethernet devices in a network, transmitting data to all connected devices simultaneously.

**2 marks**

Bridges:

Bridges are networking devices that used connect two or more network segments and filter traffic based on Media Access Control addresses, improving network efficiency by reducing collisions.

**2 marks**

Switches:

Switches are advanced networking devices that also connect multiple devices on a Local Area Network and use Media Access Control addresses to forward data only to the specific device intended to receive it, thereby reducing network congestion and improving performance.

**2 marks**

**c. Write three importance of file extensions**

- Determining the file type and format.
- Helping operating systems recognize and associate files with corresponding applications.
- Enabling easy sharing and transmission of files.
- Providing information about the content and structure of the file.
- Supporting version control and file organization.

**1 mark each × any 3 = 3 marks**

**• a. Principles of Information security.**

- Confidentiality
- Integrity
- Availability

**1 mark each × 3 = 3 marks**

**b. Definition of virtual learning environment**

A Virtual Learning Environment is an online platform designed for the delivery, management, and enhancement of educational courses. It provides tools and resources for creating course content, facilitating communication and collaboration between students and instructors, tracking student progress, and administering assessments.

**4 marks**

**c. Non-profit organizations that provide online test, practice exercise and short lectures.**

- Khan Academy
- Coursera
- Udemy
- edX
- Alison
- Academic Earth
- Big Think
- W3 Schools

***1 mark each × any 5 = 5 marks***