

**COMPUTER SCIENCE GRADE 10
MID TEREM 2 EXAM 2026**

MARKING SCHEME

Section A: (40 Marks)

1. Define the following terms (4 marks):

- a) Computer System: A complete, working computer setup including hardware, software, data, and the users who operate them. [cite: 1, 2]
- b) Operating System: System software that manages computer hardware and software resources and provides common services for computer programs. [cite: 1, 2]
- c) Data: Raw, unorganized facts, figures, or symbols that need to be processed to become meaningful. [cite: 1, 2]
- d) Information: Data that has been processed, organized, structured, or presented in a given context to make it useful. [cite: 1, 2]

2. List four types of secondary storage devices (4 marks):

Hard Disk Drive (HDD), Solid State Drive (SSD), Flash Drive (USB), Optical Disks (CD/DVD/Blu-ray), Magnetic Tape. (Any 4). [cite: 1, 2]

3. Briefly explain the difference between RAM and ROM (4 marks):

RAM (Random Access Memory) is volatile, meaning data is lost when power is off, and it is read/write memory. ROM (Read-Only Memory) is non-volatile, meaning data is retained without power, and it is primarily read-only, used for storing firmware/BIOS. [cite: 1, 2]

4. Name four common input devices and state their specific uses (8 marks):

- 1. Keyboard: For typing text and commands.
- 2. Mouse: For pointing, clicking, and navigating the GUI.
- 3. Scanner: For converting physical documents into digital images.
- 4. Microphone: For capturing audio input for voice recording or communication. [cite: 1, 2]

5. Distinguish between Hardware and Software, giving two examples of each (4 marks):

Hardware: The physical, tangible components of a computer (e.g., Monitor, RAM).

Software: The programs, applications, and operating instructions that run on the hardware (e.g., Windows 11, MS Word). [cite: 1, 2]

6. Describe the function of the CPU in a computer system (4 marks):

The CPU is the 'brain' of the computer. It performs:

- 1. Control Unit: Orchestrates the execution of instructions.
- 2. ALU: Performs arithmetic and logic calculations.
- 3.

Registers: Provides high-speed, small-capacity storage for immediate data. 4. System Clock: Synchronizes operations. [cite: 1, 2]

7. Briefly explain the role of a web browser (4 marks):

A web browser is an application software used to access, retrieve, and display information on the World Wide Web. It translates HTML/CSS code into visual web pages and manages user navigation (bookmarks, history). [cite: 1, 2]

8. State four measures one should take to ensure safety and security while using the internet (4 marks):

1. Use strong, unique passwords. 2. Enable Two-Factor Authentication (2FA). 3. Avoid clicking suspicious links or downloading from untrusted sources. 4. Keep antivirus and firewall software updated. [cite: 1, 2]

9. Identify four types of application software (4 marks):

1. Word Processors (e.g., MS Word). 2. Spreadsheets (e.g., Excel). 3. Presentation Software (e.g., PowerPoint). 4. Database Management Systems (e.g., Access). [cite: 1, 2]

Section B: (60 Marks)

10. Computer Networking & Internet (20 marks)

- a) Definition: A set of computers connected to share resources like data, hardware, or software. (2 marks) [cite: 1, 2]
- b) Types: LAN (covers a small area like a room/building), MAN (covers a city), WAN (covers countries/continents). (9 marks) [cite: 1, 2]
- c) Advantages: Sharing of files/peripherals (printers), centralized communication (email), improved data security (backup), and cost-effectiveness. (8 marks) [cite: 1, 2]
- d) Topology: Star, Bus, Ring, or Mesh (1 mark). [cite: 1, 2]

11. Word Processing & Presentation (20 marks)

- a) Save: Updates the existing file with current changes. Save As: Used to save a file under a new name or in a different format/location. (4 marks) [cite: 1, 2]
- b) Steps to insert a table: Click the 'Insert' tab, select 'Table', drag to choose the desired rows and columns, or click 'Insert Table' to specify dimensions. (6 marks) [cite: 1, 2]
- c) Features of a good slide: Limited text (bullet points), high-quality images, consistent font/color scheme, and clear visibility. (6 marks) [cite: 1, 2]
- d) Transitions: Go to the 'Transitions' tab, select a slide, choose a transition effect, and click 'Apply' (or 'Apply to All'). (4 marks) [cite: 1, 2]

12. Programming Basics (20 marks)

- a) Algorithm: A finite, step-by-step logical sequence of instructions used to solve a specific problem. (2 marks) [cite: 1, 2]

b) Compiler vs Interpreter: Compiler translates the entire source code into machine code before execution; Interpreter translates and executes code one line at a time. (6 marks)

[cite: 1, 2]

c) Pseudocode: START -> DISPLAY 'Enter two numbers' -> INPUT n1, n2 -> sum = n1 + n2 -> PRINT sum -> END. (8 marks) [cite: 1, 2]

d) High-level languages: Python, Java, C++, JavaScript. (Any 2) (4 marks) [cite: 1, 2]

13. Computer Ethics & Emerging Trends (20 marks)

a) Computer Crime: Any illegal act that involves a computer system, network, or data. (2 marks) [cite: 1, 2]

b) Common Crimes: 1. Phishing (tricking users to give info; prevent by verifying senders). 2. Hacking (unauthorized access; prevent by firewalls/encryption). 3. Piracy (illegal software distribution; prevent by using licenses). 4. Identity Theft (stealing personal info; prevent by securing private data). (12 marks) [cite: 1, 2]

c) AI in Education: Facilitates personalized learning pathways, automates administrative tasks for teachers, and provides 24/7 intelligent tutoring assistants. (6 marks) [cite: 1, 2]

