

Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development (AAMUSTED)



Faculty Of Applied Sciences and Mathematics Education

Department Of Information Technology Education

Mid Semester Examinations, February 20, 2024

COURSE CODE/TITLE	ICT 113 COMPUTER HARDWARE AND SYSTEM ESSENTIALS
DURATION	ONE WEEK
INSTRUCTIONS	ANSWER ALL QUESTIONS AND REMEMBER TO WRITE YOUR INDEX NUMBER IN THE SPACE PROVIDED
CLASS	

INDEX NUMBER:

SECTION A

1. Use the following motherboard terms to answer definitions below for **questions 1-14** Terms

- i. ATX
- ii. BIOS
- iii. Chipset
- iv. CPU
- v. Expansion slots
- vi. IDE
- vii. Internal USB
- viii. ITX
- ix. Micro-ATX
- x. Northbridge
- xi. RAM
- xii. SATA
- xiii. Southbridge
- xiv. UEFI

1. This older version of software is used to help boot the computer and manage the flow of data between the storage drive, video card, keyboard, mouse, and moreii... **BIOS**.....
2. This is the most common motherboard form factor **ATX (Advanced Technology extended)**.....
3. This is considered the brain of the computer.....iv **CPU**.....
4. This is a temporary location to store data and instructions.....XI **RAM**.....
5. This device controls high-speed access to the RAM and video card and the speed at which the CPU communicates with all of the other components in the computer.....III **CHIPSET**.....

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6. This older standard interface was used to connect disk drives to the motherboard.....**IDE**.....
7. This specifies a different software interface for boot and runtime services but still relies on BIOS for POST and setup.....XIV **UEFI**.....
8. This small motherboard form factor uses very little power, so fans are not needed to keep it cool.....**ITX**.....
9. This consists of the integrated circuits on the motherboard that control how system hardware interacts with the CPU and motherboard.....**CHIPSET**.....
10. These provide locations to connect additional components.....
.....V....**EXPANSIONSLOT**.....
11. This smaller motherboard form factor has fewer expansion slots.....
12. This 19-pin connector is used to connect the external ports on the computer case to the motherboard...VII...**USB INTERNAL**.....
13. This allows the CPU to communicate with slower speed devices including storage drives, USB ports, and expansion slots.....XIII **SOUTHBRIDGE**.....
14. This disk drive interface is used for connecting optical drives, hard drives, and solid-state drives to the motherboard.....XII...**SATA**.....

SECTION B

Fill in the spaces provided with correct answers for questions (1-12)

1. What is the primary function of a computer motherboard? Facilitating the operation of the computer as a whole
2. Which component of a motherboard is responsible for storing the BIOS settings? CMOS (complementary Metal-Oxide-Semiconductor)
3. Which type of expansion slot is commonly used for high-end graphics cards? PCIe (Peripheral component Interconnect Express) slots
5. What does the term "form factor" refer to in the context of motherboards? Its physical size, shape, and layout
6. What component is responsible for dissipating heat generated by the CPU? The CPU cooler
7. What component is responsible for managing data communication between the CPU and RAM? Memory Controller

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8. Which type of memory is directly connected to the CPU and provides fast data access? [Cache Memory](#)
9. The ATX, micro ATX, and Mini-ITX are examples of [Motherboard form factors](#)
10. The "POST" (Power-On Self-Test) is a diagnostic process performed by the motherboard during. [The startup of a computer](#)
11. What does the term "BIOS" stand for in the context of motherboards? [BASIC INPUT/OUT SYSTEM](#)
12. UEFI (Unified Extensible Firmware Interface) has largely replaced traditional BIOS as it offers: [Several advantages such as support for larger storage devices, faster boot times etc.](#)

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