



WHY VOCABULARY MATTERS

Understanding key terms will help you explain how the CPU works and answer exam questions accurately.



GCSE EXAM TIP

Use the correct technical terms in your answers to gain more marks

TERM	DEFINITION	IN CONTEXT	KEY POINTS
Central Processing Unit	The CPU is the component that fetches, decodes and executes program instructions.	The CPU processes every instruction needed to run software.	• Executes instructions • Processes data • Controls computer operations
Control Unit	The Control Unit manages the operation of the CPU by controlling the fetch-decode-execute cycle.	The Control Unit coordinates the CPU's activities.	• Controls CPU • Sends control signals • Manages FDE cycle
Arithmetic Logic Unit	The ALU performs arithmetic calculations and logical operations.	The ALU carries out calculations and comparisons.	• Performs arithmetic • Performs logic operations • Produces results
Registers	Registers are small high-speed storage locations inside the CPU that temporarily hold data and instructions.	Registers store the information the CPU needs immediately.	• Very fast storage • Temporary storage • Located inside CPU
Cache Memory	Cache memory stores frequently used instructions and data for quick access by the CPU.	Frequently used data is copied into cache memory.	• Faster than RAM • Stores frequently used data • Improves performance
Fetch-Decode-Execute Cycle	The sequence of fetching, decoding and executing instructions.	Every program instruction follows this cycle.	• Fetch instruction • Decode instruction • Execute instruction



KEY TERMS TO REMEMBER

CPU

Control Unit

ALU

Registers

Cache Memory

Fetch-Decode-Execute Cycle



COMMON MISCONCEPTIONS

- The CPU is the same as the whole computer.
- Registers permanently store files.
- Cache memory is the same as RAM.