

AQA Computer Science A Level

4.7.3 Structure and role of the processor and its components

Flashcards

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Which type of register is the status register: general purpose or special purpose?



Which type of register is the status register: general purpose or special purpose?

Special purpose



Which of the following is not found within a processor?

A: Control unit

B: Main memory

C: Buses



Which is not found within a processor?

B: Main memory



For what do the letters ALU stand?



For what do the letters ALU stand?

Arithmetic logic unit



What effect does increasing the width of the address bus have?



What effect does increasing the width of the address bus have?

Increases the computer's amount of addressable memory



Which register holds the instruction that is currently being executed by the processor?



Which register holds the instruction that is currently being executed by the processor?

Current instruction register



What is cache?



What is cache?

A small portion of fast memory used to store frequently used information in the processor.



What name is given to small storage locations used to hold data temporarily in the processor?



What name is given to small storage locations used to hold data temporarily in the processor?

Registers



What is meant by this assembly
language instruction?

STR R3, 33



What is meant by STR R3, 38?

Store the value that is in register 3 into memory location 38.



Which register holds the contents of a memory location that has been read from or data that is to be stored?



Which register holds the contents of a memory location that has been read from or data that is to be stored?

Memory buffer register



Which part of a computer's processor generates signals at a regular frequency?



Which part of a computer's processor generates signals at a regular frequency?

Clock



Which special purpose register is abbreviated as MAR?



Which special purpose register is abbreviated as MAR?

Memory address register



Name the three stages of the
fetch-execute cycle



Name the three stages of the fetch-execute cycle

Fetch, decode, execute



What name is given to the data to be used in an instruction:
opcode or operand?



What name is given to the data to be used in an instruction: opcode or operand?

Operand



Form an assembly language instruction that would mean:

“Add the value in register 4 to the value in register 5 and store the result in register 3”



Form an assembly language instruction that would mean: *“Add the value in register 4 to the value in register 5 and store the result in register 3”*

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ADD R3, R4, R5
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In which stage of the fetch-execute cycle is the program counter incremented?



In which stage of the fetch-execute cycle is the program counter incremented?

Fetch



Between which two stages of the fetch-execute cycle is the status register checked?



Between which two stages of the fetch-execute cycle is the status register checked?

Execute and fetch



What name is given to the group of instructions that a processor can carry out?



What name is given to the group of instructions that a processor can carry out?

Instruction set



In which addressing mode does the value specified by an operand signify a memory address?



In which addressing mode does the value specified by an operand signify a memory address?

Direct addressing



In which stage of the fetch-execute cycle is an instruction broken into opcode and operands?



In which stage of the fetch-execute cycle is an instruction broken into opcode and operands?

Decode



What name is given to a signal sent to the processor by another part of the computer requesting the attention of the processor?



What name is given to a signal sent to the processor by another part of the computer requesting the attention of the processor?

Interrupt

