# 3. Basic computer architectures SISD

- There is only one processor
- The processor executes one sets of instructions on one sets of data

#### SIMD

- The processor has several ALUs // several processors
- Each ALU executes the same set of instructions on different sets of data at the same time

## **MISD**

- There are several processors
- Each processor executes different set of instruction on the same set of data at the same time

### **MIMD**

- There are several processors
- Each processor execute different set of instruction
- Each processor operate on different set of data

# **Past-paper questions**

Statement		Architecture		
		MIMD	SISD	
Each processor executes a different instruction		<b>✓</b>		
There is only one processor			<b>✓</b>	
Each processor executes the same instruction input using data available in the dedicated memory	<b>✓</b>			
Each processor typically has its own partition within a shared memory		<b>✓</b>		

Most parallel computer systems use this architecture.

Midely used to process 3D graphics in video games.

A microprocessor is used to control a washing machine.

MISD

There are a number of processing units. Each

SISD

processing unit executes the

same instruction but on

different data