

**KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS**  
**COLLEGE OF COMPUTER SCIENCE AND ENGINEERING**  
***COMPUTER ENGINEERING DEPARTMENT***

**COE 205 - Term 061**  
**Assignment #1**

**Q.1**

What does the address bus carry?

- A. Instructions
- B. Addresses
- C. Data

**Q.2**

What does the control bus do?

- A. Reads data from memory
- B. Writes data to the memory
- C. Specifies the nature of the memory/IO access

**Q.3**

What is the property that makes a RAM different from a ROM?

**Q.4**

What does “Random Access Memory” mean?

**Q.5**

Are Disks part of the family of random access memories?

**Q.6**

We have a Memory Device that has 18 bits of address and 16 bits of data bus. What is the total size of the memory?

- A. In words ?
- B. In bits ?

**Q.7**

What is a DRAM (Dynamic RAM) ?

- A. A very flexible memory
- A. A memory which size can be changed at will
- B. A memory which content needs to be refreshed periodically to retain data.

**Q.8**

What is the function of the CPU?

- A. Reading Addresses from Memory
- B. Executing Programs
- C. Performing additions

**Q.9**

What are the two units that the CPU is made of ?

- A. Data Unit (or datapath) and Control Unit
- B. Cache Unit and CPU Unit
- C. Multiply Unit and Cache Unit

**Q.10**

What does Fetch mean ?

- A. Bring the clock into the CPU
- B. Read the instruction from the memory
- C. Get an data from the instruction

**Q.11**

What is the instruction format?

- A. Catalog of instructions
- B. Instruction Set
- C. Bit fields organization of the instruction that help the CPU in decoding the instruction

**Q.12**

What is the instruction Set?

- A. All instructions that the CPU recognizes and execute
- B. The CPU manual
- C. The code operation

**Q.13**

What is the code operation ?

- A. The secret coding of the instruction
- B. The field that contains the specific code for each instruction and helps the CPU differentiates between instructions
- C. The addressing mode

**Q.14**

What is an immediate operand?

- A. A constant value specified in one of the instruction format fields
- B. An instruction that is executed immediately
- C. A fast operation

**Q.15**

A program written in high level language can directly be executed on the CPU.

- A. True
- B. False

**Q.16**

The high level language is translated into machine language by a program called

- A. Compiler
- B. Linker
- C. Address Translator

**Q.17**

How are instructions of the same program contained in memory?

- A. Contiguously instruction after instruction, byte after byte until the end of the program
- B. All the Opcodes of the instructions listed one after one
- C. All the Operand fields of the instructions listed one after one

**Q.18**

What is the assembly language?

- A. Human-friendly representation of the machine code
- B. Language used in factories to assemble computers
- C. Instructions on how to assemble (put together) a computer

**Q.19**

The difference between a register and the memory is:

- A. A register is contained in the CPU
- B. A register does not retain information properly
- C. The memory is not connected to the CPU whereas the register is

**Q.20**

What is the assembler?

- A. Hardware entity that assemble the bytes together before transmitting them to the CPU
- B. Program that maps the instructions written in assembly language into machine code
- C. Expert in assembling (putting together) computers