**Pakistan School , Kingdom of Bahrain**

**E- Support and Learning Material / Session 2020-2021**

**Subject: Computer Grade: 7**

**Book: Computer Education For Grade 7 FIRST TERM**

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 **Unit 1: Hardware Basics (Week 2) Pg. No: \_\_\_5\_\_\_**

**Topic: Control Unit**

**Objectives: The Student should be able to**

* **Describe Control Unit**

Control Unit controls, coordinates and direct all the operation performed by the processor. It gets instruction from memory, executes and stores them accordingly. It controls the movement and flow of data. It acts like a supervisor.

**Worksheet:**

**Fill in the blanks**

1. Control Unit get instruction from\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Control Unit controls the movement and flow of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ controls, coordinates and direct all the operation performed by the processor.

**Homework:**

Q#1: Define Control Unit?

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 **Unit 1: Hardware Basics Pg. No: \_\_\_5\_\_\_**

**Topic: Arithmetic Logic Unit**

**Objectives: The Student should be able to**

* **Describe Arithmetic Logic Unit**
* **Differentiate between Arithmetic Unit (AU) and Logic Unit (CU)**

Arithmetic Logic Unit performs arithmetic and logical operations. ALU consists of two sub units:

1. Arithmetic Unit
2. Logic Unit

**1. Arithmetic Unit (AU):**

 Addition, Subtraction, Division, Multiplication arithmetic operations are performed by Arithmetic Unit (AU).

**2. Logic Unit (CU):**

 Less than, Greater than, Equal to, Not Equal to, and other logical operation are performed by Logic Unit (LU)

**Worksheet:**

1. The part of CPU that performs arithmetic and logical operations is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Arithmetic operation are performed by \_\_\_\_\_\_\_\_\_\_\_\_\_.

a. CPU b. ALU c. LU d. AU

1. Logic operation are performed by \_\_\_\_\_\_\_\_\_\_\_.

a. CPU b. ALU c. LU d. AU

**Homework:**

Q#1: What is difference between AU and CU?

Q#2: Define Arithmetic and logic unit?

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 **Unit 1: Hardware Basics Pg. No: \_\_\_5\_\_\_**

**Topic: Memory**

**Objectives: The Student should be able to**

* **Define Memory**
* **Differentiate between Ram (Volatile) and Rom(non-Volatile memory)**

Memory is an Electronic device that holds instructions and data. It is also called Primary or Main Memory. It is the internal storage area to store data in the computer. It is mainly divided either in RAM or the ROM.

|  |  |
| --- | --- |
| RAM | ROM |
| Stands for Random Access memory | Stands for Read only Memory |
| RAM is erasable chip located on Motherboard | ROM is non-erasable chip located on Motherboard |
| RAM is temporary memory. | ROM is permanent memory. |
| Data stored on RAM can be changed or modified.  | Data stored on ROM can be read but cannot be changed or modified by the user.  |
| The contents stores in RAM are lost when computer is off. | The content store in ROM are not lost when computer is off. |
| It is also called volatile memory. | It is also called non-volatile memory. |

**Worksheet:**

**Fill in the Blanks**

1. Memory is mainly divided into \_\_\_\_\_\_\_\_\_\_\_\_\_\_ parts.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is the electronic device to hold instruction and data.
3. The data in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cannot be modified by the user.
4. The data and instruction stored in RAM are\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Choose the Correct Answer**

1. The nonvolatile (permanent memory) of the computer is called \_\_\_\_\_\_\_\_\_\_\_.

a. ALU b. CPU c. RAM d. ROM

1. The volatile memory of the computer is called \_\_\_\_\_\_\_\_\_\_\_.

a. ALU b. CPU c. RAM d. ROM

**Homework:**

Q#1: Define memory?

Q#2: Differentiate between RAM and ROM?

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 **Unit 1: Hardware Basics Pg. No: \_\_\_6\_\_\_**

**Computer:**

**Objectives: The Student should be able to:**

* **Recognize and explain Expansion Card**
* **List the Uses of Expansion Cards in Computer**

**Topic: Expansion Card**

Expansion Card are the Hardware components which are added to the computer to increase its functionality and capacity. Expansion Cards are inserted into the expansion slots available on the Motherboard. These are also known as add-on or internal cards.

**Uses of Expansion Cards**

Some of the important Expansion Card and their functions:

* **Sound Cards** produce the sound like music and voice.
* **TV tuner Cards** add functionality of TV in the computer.
* **Video cards** produce 3d effects for playing games.
* **LAN cards** are used for networking.
* **Modem cards** are used for Internet connectivity.

**Worksheet:**

**Choose the Correct Answer**

1. The hardware component added to a computer to increase the functionality and capacity is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. RAM b. Expansion Slot c. Expansion Card d. Motherboard

1. Expansion Cards are the \_\_\_\_\_\_\_\_\_components.

a. Hardware b. Software c. RAM d. Processor

1. LAN cards are used for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. Networking b. TV in Computer c. Playing Game d. Sound

**Homework:**

Q#1: Write a note on Expansion cards and its uses?