**Course:** Computer Skills/ Applications  **Program:BS(DT/RAD/MIC)**

**Semester:** 4th **Total Marks:** 30

**Instructor:** Zakir Rahim **Time**: 4 Hours

Due Date: 21 August, 2020

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**Dt 1st semester**

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**Instructions:**

* Students are required to solve the provided assignment and upload it on SIC within specified time.
* The solutions must be type-written.
* The solutions must be uploaded either in Ms-Word format or pdf format.
* Students are required to save the file with their name and student id. For example ahmad\_12345.

Q1. (a) In your opinion what are the 3 most important characteristics of computers, Explain each characteristic? (5)

(b) Write key characteristics of fourth generation of computers? (5)

Q2. (a)Discuss the importance of Arithmetic logic unit and Control unit of a computer system? (5)

(b)Write a detailed note on importance of RAM (Random Access Memory)? (5)

Q3. Write a detailed note on Basic Organization of a computer System along with the functions of each part.

 (10)

**ANS 1**

Part (a)

1. Automatic

* Given a job computer can work on it automatically without human intervertions.

2. Accuracy :

* Accuracy of computer is consistently high and the degree of its accuracy depend upon its design .
* computer errors caused due to incorrect input data or unreliable program are often referred to as garbage-in-garbage out GIGO.

3. Power of Remembering:

* Computer can store and recall any amount of information because of secondary storage capability it forgets or looses certain information only when it is asked to do.

 **Part (b)**

 **Key Characteristics**

* Small afford able reliable and easy to use PCs
* More powerful and reliable mainframe systems and supercomputers
* Totally general purpose machines
* Easier to produce commercially
* Easier to upgrade
* Rapid software development possible .

**ANS 2**

**Part (a)**

**Arithmetic Logic Unit ( ALU)**

* Arithmetic logic of a computer system is the place where the actual executions of instruction take place during processing operation .

 **Central Processing Unit (C P U)**

* Arithmetic logic unit (ALU) + Control unit (CU) = Central processing unit (CPU).

**Part B**

**Random Access Memory (RAM)**

* . Volatile in nature .
* . IN case of power interruption all the data in RAM is lost .
* . RAM can only store data as long as computer is On.

RAM chips are of two types

Dynamic RAM
Static RAM

* Dynamic Ram : Uses an external circuitry to periodically regenerate or refresh storage charge to retain the stored data .
* Static RAM : Dos not need any special regenerator circuit to retain the stored data .

Faster costlier and consumes more power .

**ANS 3**

Basic Organization Of A Computer System

 Storage unit

 Program and data input unit ; secondary storage

 Information (Results) Output : primary storage

Control unit

Arithmetic Logic unit indicates flow of instruction and data

 Indicates the control unit ‘

**Input Unit**

An input unit of a computer system performs the following functions :

* it accepts (or reads) instruction and data from outside world
* it converts these instruction and data in computer acceptable form
* it supplies the converted instructions and data to the computer system for further processing.

**Output Unit**

An output unit of a computer system performs the following function :

* it accepts the results produced by the computer which are in coded form the hence cannot be easily understood by us
* its converts these coded result to human acceptable (readable) form
* its supplies the converted result to outside world .

**Storage unit**

* data and instruction required for processing ( received from input devices)
* intermediate result processing
* final result of processing before they are released to an output device

**arithmetic logic unit**

arithmetic logic unit of a computer system is the place where the actual execution take place during processing operation

**Control Unit**

Control unit of computer system mange and coordinates the operation of all other components of the computer system .

**Central processing unit**

arithmetic logic unit + control unit = central processing unit

* it is the brain of a computer system
* it is responsible for controlling the operation of all other units ..

 **Thank you sir**