

Course: Computer Skills/ Applications
Semester: 4th
Instructor: Zakir Rahim
Due Date: 21 August, 2020

Program:BS(DT/RAD/MIC)
Total Marks: 30
Time: 4 Hours

Student Name : Haider Khan.

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

Ans: (1)Speed(2) accuracy (3) Power of computer remembering

Speed: computer can perform data processing jobs very fast usually measured in microseconds nanoseconds and picoseconds

Accuracy: Accuracy of a computer is consistently high and the degree of its accuracy depends upon its design. Computer errors caused due to incorrect input data or unreliable programs are often referred to as Garbage- In-Garbage-Out(GIGO)

Power of remembering: computer can store and recall any amount of information because of its secondary storage capability it's forgets or loses certain information only when ask to do so .

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

Ans :1 Small, affordable, reliable, and easy to use PCs

2.More powerful and reliable mainframe systems and supercomputers

3. Totally general purpose machines
4. Easier to produce commercially
5. Easier to upgrade
6. Rapid software development possible

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

(a) Ans: *Arithmetic Logic Unit* : is the place where the actual executions of instructions takes place during processing operation.

Importance: An arithmetic logic unit (ALU) is a digital circuit used to perform arithmetic and logic operations. It represents the fundamental building block of the central processing unit (CPU) of a computer. The control unit moves the data between these registers, the ALU, and memory

Control Unit of a computer: Is system manages and coordinates the operations of all other components of the computer system

Importance: The control unit (CU) is a component of a computer's central processing unit (CPU) that directs the operation of the processor. It tells the computer's memory, arithmetic and logic unit and input and output devices how to respond to the instructions that have been sent to the processor

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

(b) Ans: *Computer random access memory (RAM):* is one of the most important components in determining your system's performance. RAM gives applications a place to store and access data on a short-term basis. It stores the information your computer is actively using so that it can be accessed quickly

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

ANS: *Basic organization of computer system:* main component of basic organization of a computer system is micro-processor(C.P.U), memory unit(MU), and input-output devices.

Arithmetic logic unit: Arithmetic Logic Unit of a computer system is the place where the actual executions of instructions takes place during processing operation

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

It accepts (or reads) instructions and data from outside world

It converts these instructions 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 functions:

It accepts the results produced by the computer, which are in coded form and hence, cannot be easily understood by us

It converts these coded results to human acceptable (readable) form

It supplies the converted results to outside world

Explanation:

CPU : CPU is a brain of computer. It controls the computer system. It converts data to information.

ALU : This is a part of CPU. It consists of two units. one is arithmetic unit and another one is logic unit. Arithmetic and logical operation are performed in this part.