

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

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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)

- 1)High speed : Computer can perform a lot jobs in very high speed even in nanosecond
- 2) power of remembering: computer can a lot of data in the memory
- 3)No IQ: A computer can do only those which jobs which are programmed in it

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

- ✓ Small, affordable, reliable, and easy to use PCs
- ✓ More powerful ,and reliable mainframe systems and supercomputers
- ✓ Totally general purpose machine
- ✓ Easier to produce commercially
- ✓ Easier to upgrade

✓ Rapid software

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

Arithmetic logic unit :

It is the actual unit of computer system where the actual execution of instructions takes place during the processing of data

Control unit:

It manages and coordinates all the operations of other components of computer system

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

Ram is volatile memory it means that we can keep it and use it for other computer system .It stores only systemic data and to process the system . Without Ram computer can not be on because of coding store in the ram there are two types of chips in the Ram

Dynamic RAM

- Uses an external circuitry to periodically “regenerate” or refresh storage charge to retain the stored data.

Static RAM

- Does not need any special regenerator circuit to retain the stored data.
- Faster, costlier and consumes more power.

Q3. Write a detailed note on Basic organization of a computer System along with the functions of each part. (10)

There are five basic units of computer organization

Inputting. The process of entering data and instructions into the computer system

Functions of input unit:

- 1.It accepts (or reads) instructions and data from outside world
- 2.It converts these instructions and data in computer acceptable form
- 3.It supplies the converted instructions and data to the computer system for further processing

Storing. Saving data and instructions to make them readily available for initial or additional processing whenever required

Function of storing unit:

- 1.Data and instructions required for processing (received from input devices)
- 2.Intermediate results of processing
- 3.Final results of processing, before they are released to an output device

Processing. Performing arithmetic operations (add, subtract, multiply, divide, etc.) or logical operations (comparisons like equal to, less than, greater than, etc.) on data to convert them into useful information

Function of processing unit:

It is the brain of a computer system

It is responsible for controlling the operations of all other units of a computer system

Outputting. The process of producing useful information or results for the user such as a printed report or visual display

Function of output unit:

1. It accepts the results produced by the computer, which are in coded form and hence, cannot be easily understood by us
2. It converts these coded results to human acceptable (readable) form
3. It supplies the converted results to outside world

Controlling. Directing the manner and sequence in which all of the above operations are performed