

Course: Computer Skills/ Applications
Semester: 1st
Instructor: Zakir Rahim
Due Date: 21 August,2020

Program:BS(DT/RAD/MIC)
Total Marks: 30
Time: 4 Hours
Name:Anwar ul haq 16266

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?

Ans: The characteristics of computers that have made them so powerful and universally useful are speed, accuracy, diligence, versatility and storage capacity. Let us discuss them briefly. Computers work at an incredible speed. A powerful computer is capable of performing about 3-4 million simple instructions per second.

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

Ans: 1) The fourth generation computers have microprocessor-based systems. It uses VLSI (Very Large Scale Integrated) circuits. 2) They are the cheapest among all the computer generation. 3) The speed, accuracy and reliability of the computers were improved in fourth generation computers.

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

Ans: 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. Modern CPUs contain very powerful and complex ALUs. In addition to ALUs, modern CPUs contain a control unit (CU).

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

Ans: RAM chips are of two types

- A. Dynamic RAM
- B. Static RAM
- C. Dynamic RAM

- D. Uses an external circuitry to periodically “regenerate” or refresh storage charge to retain the stored data.
- E. Static RAM Does not need any special regenerator circuit to retain the stored data.
- F. 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)

Ans: A computer consists of five functionally independent main parts input, memory, arithmetic logic unit (ALU), output and control unit. ... This is either stored in the memory or immediately used by the processor to perform the desired operations. The program stored in the memory determines the processing steps.

1:Input Any information or data sent to a computer for processing is considered input. Input or user input is sent to a computer using an input device. ... The input example (top) shows data being sent from a keyboard to a computer.

2:memory Computer memory is any physical device capable of storing information temporarily, like RAM (random access memory), or permanently, like ROM (read-only memory). Memory devices utilize integrated circuits and are used by operating systems, software, and hardware.

3:Arithmetic logic unit An arithmetic logic unit is a combinational digital electronic circuit that performs arithmetic and bitwise operations on integer binary numbers. This is in contrast to a floating-point unit, which operates on floating point numbers.

4:Output Data generated by a computer is referred to as output. ... The most commonly used output device is the computer's monitor, which displays data on a screen. Devices such as the printer and computer speakers are some other common output devices.

5:Control Unit 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.