SUBJECT: DATA PROCESSING **2ND TERM** **CLASS: SSS2**

SCHEME OF WORK

WEEK S	**TOPICS**
1.	REVIEW OF FIRST TERM
2.	COMPUTER DATA CONVERSION
3.	CONCEPT OF COMPUTER FILES
4.	HANDLING COMPUTER FILES
5.	WORD PROCESSING 2
6	SYSTEM DEVELOPMENT CYCLE 1
7.	SYSTEM DEVELOPMENT CYCLE 2
8.	PROGRAM DEVELOPMENT
9.	ALGORITHMS AND FLOW CHART
10.	INTRODUCTION TO BASIC PROGRAMMING
11.	REVISION
12	EXAMINATION

WEEK 2 **Date……..**

COMPUTER DATA CONVERSION

Register

This is a special high-speed storage area within the CPU. All data must be represented in a register before it can be processed, for example, if two numbers are to be multiplied, both numbers must be in registers, and the result must be placed in register. (The register can contain the address of a memory location where data is stored rather than the actual data itself.)

Address

An address is used to reference a storage location in main memory. You can think of computer memory as an array of storage boxes, each of them has an address (a unique number) assigned to it.

Bus

A collection of wires through which data is transmitted from one part of a computer to another. You can think of a bus as a highway on which data travels within a computer. When used in reference to personal computers, the term bus usually refers to internal bus. This is a bus that connects all the internal computer components to the CPU and main memory

Types of Registers

The types of registers are Memory data register (MDR) and Current instruction Register (CIR)

The types of registers can be explained better by their functions.

MDR

- The memory data register is used to hold data or the memory address that contains either the next piece of data or an instruction that is to be used.
- The memory data register acts like a buffer and holds data that is transferred from the memory to the processor.
- The memory data register is used whenever data is being transferred between central processing unit and main memory.

CIR

- Current instruction register is the register, usually in the control unit, that contains the instruction that is being executed by the CPU.

- ❖ The CIR stores the instruction currently being executed. In simple processors each instruction to be executed is loaded into the instruction register which holds it while it is decoded, prepared and ultimately executed.

Differences between Register and Main Memory:

Factor considered: storage, speed, storage capacity and relative cost.

Storage devices	Speed	Storage capacity	Relative cost
Register	Fast	Very low	Very high
Main memory	Very fast	Low and moderate	High speed

DATA-FETCH-EXECUTE CYCLE

Fetch execute cycle is the very basic way a computer works. All commands are executed through the running of this cycle. The cycle itself has very few commands, however when linked up together it is possible to create a large program, or even an operating system.

The cycle contains 3 main parts

1. Fetch the instruction
2. Decode the instruction
3. Execute the instruction

OPERATING PROCEDURE OF COMPUTER DATA PROCESSING

Data processing consists of all activities which are necessary to transform data into information.

Computer data processing is grouped under five basic categories as shown below;

CONVERSION

MANIPULATION

STORAGE

COMMUNICATION

The following are…