**Chapter 1: The Programming Process**

**Ref book: Programming Practices & Techniques (6th edition)**

1. **What is computer program?**

**Ans:** A group of instructions for a computer that cause it to perform a desired task.

1. **What do you know about programming process?**

**or,** **List the activities of the programming (or problem solving) process in order**

**Ans:** The programming process is, therefore, a problem solving process. It

consists of the following activities…

1. Defining a problem,

2. Preparing an algorithm

3. Preparing a program flowchart

4. Coding the program

5. Debugging and testing

6. Documenting

**3. What things the programmers must carry out before proceeding one activity to the next?**

**Ans:** Each activity has checking procedures that the programmer must carry out before proceeding tothe next activity.

**4. When does the programmer carry out documenting activities?**

**Ans:** Documenting activities are carried out simultaneously with the other activities.

1. **What is input?**

**Ans:** The operation of reading data that is to be read and processed by a program.

N.B: We can get input by two way…..I) from file II) by using Keyboard

1. **What is output?**

**Ans:** The result of processing by the computer; the process producing such result.

1. **What role does a programmer play regarding computer program?**

**Ans:**

1. **Who is a Systems Analyst?**

Ans: A system analyst is a person who plans the collection of equipment, programs, people

And, procedure that make up a system.

1. **What do you mean by POSITIVE, NEGATIVE and ZERO numbers?**

**Ans:**

1. **What do you mean by Algorithm?**

**Ans:** An algorithm is the description of the sequence of steps required to solve a problem.

1. **What is a counter?**

**Ans**: A counter is a device for keeping track of the number of times something

Occur

1. **What do you mean by an Execution-time-error?**

**Ans:** An error, detected during the execution of a program that is of such a severe nature that execution cannot be continued.

1. **What do you know about Desk-checking an Algorithm?**

**Ans:** Before proceeding to the next activity, the preparation of a program

Flowchart, we can check our algorithm by making up a list of numbers

and seeing what happens when we attempt to process the list with our

Algorithm. this is called desk checking the algorithm.

1. **What is a Flowchart? Why do we use it?**

**Ans:** A flowchart is a symbolic representation of algorithm. In a flowchart, an algorithm is represented

by a set of outlines which has been adopted as a standard by the ANSI.

1. **What do you know about Program Flowcharting Outlines?**

**Ans:**  A representation using standard outlines of the processing steps to be used to solve a problem

1. **What is compiler?**

**Ans**: A compiler is used to translate each source program instruction into one or more object program instructions

1. **What is assembling language?**

**Ans:**

1. **Where do we use terminal outlines?**

**Ans:**

1. **What do you mean by coding?**

**Ans:** Coding means writing instructions for the computer to perform a desired task.

1. **Name some programming language?**

**Ans:** BASIC

COBOL

FORTAN

PASCAL

RPG II

1. **What do you know about debagging and testing?**

**Ans:** The programmer output must be carefully examined tom ensure that it is correct. if it is not, the source of the problem must be identified and corrected. The process of detecting and correcting errors is referred to as testing and debugging.

1. **What is documenting?**

**Ans:** Preparing a written record of all activities associated with the programming process.

1. **What is detail line and total line?**

**Ans:**  **Detail line:** A printed line in a report that contains information about a single entity

is called a detail line.

**Total line:** A line that summarizes data obtained from one or more input records.

1. **Define the followings –**

** Logic Error**

**Ans:** An error that occurs as a result of faulty reasoning; can not be detected by a translation program, but will produce incorrect result.

** Syntax Error**

**Ans:** Violation of the rule of the particular programming language being

Used.

** Source program**

**Ans:**  Instructions for the computer written in a form that is relatively easy for the programmer to work with; must be converted to machine language by a translation program before it can be run on it.

** Object program**

**Ans:** The object will be in a binary form

** ANSI**

**Ans:** American National Standards Institute

** VDT**

Ans: Referred to as Visual Display Terminal.

 **CRT**

**Ans:** Cathode Ray tube

** File**

**Ans:** A file is a collection of related records.

** Record**

**Ans:** A record is a collection of fields. It is a component of a file containing information about

a single entity.

** Field**

**Ans:** A field is a subdivision of a record. A field is a collection of characters that is used to

Represent a unit of information about an entity.

** Character**

**Ans:**  A letter of the alphabet, a digit or a special character ($, %, +, etc.)

** BASIC**

**Ans:** Beginner’s All-Purpose Symbolic Instruction Code.

BASIC is widely used on personal computer

 **COBOL**

**Ans:** Common Business Oriented Language designed for business data processing requirements.

** RPG II**

**Ans:** Report Program Generator. Powerful language for business application. Widely used on smaller business computers.

 **FORTRAN**

**Ans:** FORmula TRANslator.Designed for mathematical problem

** Pascal**

**Ans:** A general purpose programming language

** EOF**

**Ans:** End-of-file condition when reading file.

** Loop**

**Ans:** A group of processing steps that is used repeatedly

** High Level Language**

**Ans:** A programming language in which one source program instruction may be

translated into one or more object program instructions is called a high-level language. Hi-level languages are most widely used as they are easy to learn. Programs written in a high-level language for one computer can easily be used on another computer with only minor modifications.