**Task 2:-**

**Summary:-**

Languages of MP:-

Disadvantages: - OP code, instructions, operations may differ from MP to another / difficult to use

So that’s why programing languages are used

Advantages: - optimize size, execution time / no need t compiler

Assembler

Compiler

Enter

User Programming Language Assembly Language

In form of Instructions

Machine Language Micro Processor

Has to know both format and set instructions

Format: OP- code, OP1, OP2

Set: - each couple of digits meaning (011 means add for example)

History of programming languages:-

1960 first programming language appears (ALGOL)

1967 Martin Richers develops BCPL

1970 Ken Thompson devolves B language (working only in UNIX operating system)

1972 Dennis Ritchie develops C language

1989 ANSI put the standard C

Why using C in Embedded?

* Portable (working at different platforms)
* Using pointers, C can allocate address in memory
* Determine Layouts using linkers

Tool chain:-

Convert file.c to an executable one (building process / compilation process)

There are 2 types:-

Native: - the file runs on the me processor the tool chain installed on

Cross – the file runs on different processors

.exe

.c

.o

.i

.s

File preprocessing compiler assembler linker executable file