NAME: KRUNAL RANK

ROLL NO: U18CO081

CLASS: BTECH III, Computer Eng.

SEM: Semester 6

U18CO081
28/1/21

System Softwares
Tutorial 3

Ans 1: Assembly Language Statements are entered one per line.
It has the following format:-
[Label] mnemonic [operands] [;comments]

The fields in the square brackets are optional.
A basic instruction has 2 parts:
→ the mnemonic or name of instructions
→ the parameters of the command.

Some examples for ~~assemp~~ assembly language statements are:-

```
INC   CANT
MOV   TOTAL,48
ADD   AH,BH
```

Ans 2: Assembly Language, like any other programming language, consists of basic elements such as:-

- Labels
- Orders
- Directives
- Comments.

Labels are the symbolic representations of specific memory addresses.

Directives are the commands that are built in assemblers and are obligatory.

Orders the regular statements in assembly language.

Comments are the statements that are ignored by the assembler and their only purpose is to improve the readability of code.

Ans 3: Imperative statements are the statements that indicate an action to be performed during the execution of assembly program. Each imperative statement is translated into machine code at the time of execution.

Ans 4: Assembler directives are the commands that are used by assembler to perform various book-keeping, storage reservations and control functions.

Some of the assembly directives are:-

Category	Directives
Compiler-Use-Only	.bgnb .endb .file .gjsrline .gjsrsaved .lab .livereg .loc .option .vgen .ugen .vreg.
location Control	.align .data .rdata .sdata .space .text
Symbol Declaration	.extern .global .struct .weakext

Routine Entrypoint Definition .aent .ent

Other directives are:-

=(Equal)	IFNOT
EQU	ELSE
ORG	ENDIF
DS	EEORG
ID	EEDATA
INCLUDE	DB
FUSES	DW
IF	

Ans:- The syntax of declarative statements is:-

[LABEL] DS <constant>

[LABEL] DC <value>

DS is short for Data Storage

DC is short for Declare Constant.

These statements are used to instruct the assembler to allocate memory to given labels mentioned in the statement. These labels can then be used to access the assigned memory locations.