Assignment 03

Q1) Procedure	Macro
1) It resembles a call function of high level lang. The processor branches to the processor on call proc instruction & returns back to the caller after execution	1) When the assembler comes across the instruction "CALL MACRO" it replaces this instruction with the group of instructions placed in the macro
2) Since the processor branches to another memory location & returns back	2) Macro does not required any latency period.
3) Since the assembler stores the instructions of procedure only once in the memory, the program consumes less space in memory	3) Since the assembler replaces all "CALL MACRO" instruction by the group of instructions in the macro the program consumes more space in memory
4) Procedures are to be used for repititive task, if task is big	5) Macros are to be used for repetitive task if task is small.

Q2)

Address	Hex code	labels	Mnemonics	Comments
F000	21, 00, 80		LXI H, 8000H	Point to get array
F003	4E		MOV C, M	get the size of array
F004	23		INX H	Point to actual memory
F005	46		MOV B, M	Load the first n
F006	0D		DCR C	Decrease C
F007	23	LOOP	INX H	Point the next Ho
F008	7E		MOV A, M	Get the next n
F009	B8		CMP B	Compare acc to
F00A	DA, 0E, F0		JC SKIP	if B>A, then skip
F00D	47		MOV B, A	if Cy is 0 upd
F00E	0D	SKIP	DCR C	Decrease C
F00F	C2, 07, F0		JNZ LOOP	When count is n to loop
F012	21, 00, 90		LXI H, 9000H	Point to destination
F015	70		MOV M, B	Store the minim
F016	76		HLT	Terminate the program.