

## SPOS INSEM IMPORTANT

- a) Draw and explain flowchart of Pass-I of two pass assembler with suitable example.
- b) Differentiate between literal and immediate operand.
- c) Explain algorithm of pass 1 of two pass assembler.
- d) Define macro. What are the advantages of macro facility? How they are different from function.
- e) Write Short note on i) Compiler ii ) Interpreter iii) Assembler
- f) Explain the output of pass-I of two pass Assembler with respect to the given program:

**I) START 600**

READ A

READ B

LOOP MOVER AREG, A

MOVER CREG, B

SUB AREG,='I'

BC GT,LOOP

STOP

A DS 1

B DS 2

END

**ii) PROG START 50**

USING PROG+2, 15

L1, FIVE

AL, = F '2'

LTORG

ST 1, RES

FIVE DC F '4'

RES DS F '4'

RES DS IF

END

- g) What is Macro? Explain Macro definition, Macro Call and Macro Expansion with an example and Advantage macro facility
- h) What are different data structures required for Two Pass Macro Processor? Justify which data structures are implemented at that time of processing Macro definition, Macro call and Macro Expansion
- i) Explain the Phases of Compiler and their output with an example.
- j) Explain the concept of single pass Macro processor with example. Give example for macro calls within the macro.