

SPPU-TE-COMP-CONTENT – KSKA Git

Total No. of Questions : 4]

SEAT N

PC-27

[Total No. of Pages : 2

[6360]-27

T.E. (Computer Engineering) (Insem) SYSTEMS PROGRAMMING AND OPERATING SYSTEM (2019 Pattern) (Semester - I) (310243)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) Answer Q1 or Q2, Q3 or Q4.
- 2) Neat Diagrams must be drawn wherever necessary.
- 3) Figure to the right indicate full marks.
- 4) Assume suitable data if necessary.

Q1) a) Draw and explain flowchart of pass I of two pass assembler with example. [8]

b) Differentiate : [7]

- i) Literal and Immediate operand.
- ii) Assembler and Compiler

OR

Q2) a) Consider following Assembly code and show output of pass-I of two pass Assembler with entries in Mnemonic Opcode Table, Pseudo Opcode Table, Symbol Table, Literal Table and Pool Table. [8]

PROG START 50

USING PROG+2, 15

LI, FIVE

AI, = F '2'

LTORG

ST 1, RES

FIVE DC F '4'

RES DS F '4'

RES DS IF

END

b) Enlist and explain necessity of different data structures used in Pass-I of two pass Assembler? [7]

P.T.O.

SPPU-TE-COMP-CONTENT – KSKA Git

- Q3) a) Explain the Phases of Compiler and their output with an example. [8]
- b) Define macro. What are the advantages of macro facility? How they are different from function. [7]

OR

- Q4) a) What is the use of AIF and AGO pseudo-op in macro? Explain macro expansion with positional parameter with the help of suitable example. [8]
- b) Explain the concept of single pass Macro processor with example. Give example for macro calls within the macro. [7]
