

Total No. of Questions : 6]

SEAT No. :

P540

[Total No. of Pages : 2

TE/Insem/APR-140

T.E. (Computer Engineering) (Semester - II)
System Programming and Operating System
(2015 Pattern)

Time :1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Neat diagrams must be drawn wherever necessary.
- 2) Figures to the right indicate full marks.
- 3) Assume suitable data, if necessary.

Q1) a) Explain the data structures required for TWO PASS Assembler in detail. [7]

b) Explain AIF, AGO and ANOP statements with example. [3]

OR

Q2) a) What are the Assembler Directives? Explain the Processing of LTORG, ORIGIN statements in detail. [5]

b) Consider following assembly language code show output of pass-1 of two pass assembler. [5]

	START	100
	READ	N
	MOVER	B,='1'
	MOVEM	B,TERM
AGAIN	MULT	B,TERM
	MOVER	C,TERM
	COMP	C,N
	BC	LE,AGAIN
	MOVEM	B,RESULT
	LTORG	
	PRINT	RESULT
	STOP	
N	DS	1
RESULT	DS	20
TERM	DS	1
	END	

P.T.O.

Q3) a) Explain general loader scheme with advantages and disadvantages using suitable diagram? [6]

b) What are types of loaders? Discuss four different functions of loaders. [4]

OR

Q4) a) What are advanced macro facilities? Explain any one in detail. [6]

b) What are subroutine linkages? What are benefits using it? [4]

Q5) a) Explain lexical analysis with example. [5]

b) What is YACC? Explain Working of YACC with suitable diagram? [5]

OR

Q6) a) Consider the input "X=Y+Z*5;" and show the output of each phase of the compiler with suitable diagram? [6]

b) Compare compiler and interpreter. [4]

