B.E. (Computer Engineering) Sixth Semester (C.B.S.)

System Software

P. Pages : 2 **NRT/KS/19/3500**

Time : Three Hours * 0 7 6 4 * Max. Marks : 80

Notes :
1. Solve Question 1 OR Questions No. 2.
2. Solve Question 3 OR Questions No. 4.
3. Solve Question 5 OR Questions No. 6.
4. Solve Question 7 OR Questions No. 8.
5. Solve Question 9 OR Questions No. 10.
6. Solve Question 11 OR Questions No. 12.
7. Due credit will be given to neatness and adequate dimensions.
8. Assume suitable data whenever necessary.
9. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Explain evolution of component of programming system. **7**

b) Explain general machine structure in detail, why it is called as stored program concept? **7**

OR

2. a) Give and explain flowchart of pass – I & pass – II overview. **8**

b) Give & explain the data structure required in pass – I & pass – 2 assembler. **6**

3. a) Explain Macro call within macro with example. **7**

b) What is use of conditional macro calls? Explain AIF. **6**

OR

4. Explain in detail the two pass macro processor with help of neat & clean flowchart what macro facilities are restricted in this design. **13**

5. a) What are different loading scheme? Explain with examples. **7**

b) What are four cards used by direct linking loader? Give details of each. **7**

OR

6. a) What are the functions of loader? How they are preformed in relocating loader. **7**

b) Write short note on dynamic loading & linking. **7**

7. a) Draw a block diagram of phases of compiler and indicate the main function of each phase. **5**

b) What is token? How token are specified? Also explain how tokens are recognized. **8**

OR

8.	a)	Explain LEX & YACC in detail.	**7**
	b)	What is significance of intermediate code generation phase of compiler. Explain with the help of example.	**6**
9.		What is device driver? Explain different UNIX devices drivers in details.	**13**

OR

10.	a)	Give and explain device driver in installation steps in WINDOWS.	**5**
	b)	Give and explain the steps involved in designing device driver.	**8**
11.	a)	Explain register organisation of IA – 32 processor.	**7**
	b)	Explain IA – 32 memory model.	**6**

OR

12. Write short note on following.

i) Operand addressing in IA – 64. **4**

ii) Intel Netburst ® microarchitecture. **4**

iii) Notational convention in IA – 32 & IA – 64. **5**

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