

Con/3178-07. (Library)

(REVISED COURSE)
(3 Hours)

ND-2014
[Total Marks : 100

4/6/07

N.B. : (1) Attempt any **five** questions.

(2) **Figures** to the **right** indicate **full** marks.

(3) Assume **suitable** data, if **required**.

1. (a) Explain the MASAM and SPARC assembler. 10
(b) Explain file system and deadlock handling in UNIX. 10
2. (a) What is the forward reference problem ? How it is handled in a two-pass assembler ? Explain with the help of database. 10
(b) Explain in detail about Peterson's solution. 10
3. (a) State differences between macro and a subroutine and explain when will a macro be used. 10
(b) Explain methods used for allocating disk space for files. 10
4. (a) What is the need of linking editor in systems programming ? Explain its working in brief. 10
(b) Distinguish between compiler and interpreter. Explain overlay and binding in terms of loaders. 10
5. (a) Explain any one scheduling algorithm. 10
(b) Describe error identified by the different phases of compiler. 10
6. (a) Differentiate between syntax tree and parse tree. Also explain. 10
(b) What is ambiguous grammar assuming some suitable grammar ? 10
7. Write short notes on : 20
 - (i) Code optimization in compiler
 - (ii) Deadlock avoidance and prevention in operating system
 - (iii) Preemptive scheduling
 - (iv) Debug monitors.