

Con/5275-07.

(REVISED COURSE)

CD-5562

(3 Hours)

[Total Marks : 100]

- N.B. :** (1) Question No. 1 is **compulsory**.
 (2) Attempt any **four** questions out of remaining **six** questions.
 (3) Assumptions made should be **clearly** stated.
 (4) **Figures** to the **right** indicate marks for **each** question.
 (5) Assume **suitable** data wherever **required** but **justify** the **same**.

Q. No.1 a) Explain design of direct linking loader. (10)
 b) Describe various forms of intermediate code used by compiler. (10)

Q.No.2 a) Give analysis and design of single pass assembler with respect to flow chart, data structures and algorithm. (10)

b) Construct predictive parsing table for following grammar. (10)

$S \rightarrow A$

$A \rightarrow aB \mid Ad$

$B \rightarrow bBC \mid f$

$C \rightarrow g$

Q. No.3 a) Explain Recursive descent parser with suitable example (10)

b) Differentiate between linkage editor and linking loader. (10)

Q. No.4 a) i) What is binding? Explain static and dynamic binding. (10)

ii) Write note on 'programming environment'

b) Explain single pass algorithm for macro definitions within macro. (10)

Q. No.5 a) Explain with help of memory, data formats, registers, instruction formats, addressing modes of traditional CISC machines. (10)

b) Write short notes on (10)

i) SPARC Assembler.

ii) ANGL macro language.

Q. No.6 a) Write sequence of steps involved in dynamic debugging of program. (10)

b) Explain with suitable example two pass algorithm for macroprocessor. (10)

Q. No.7 a) Write short notes on any two: (10)

i) Macroassembler.

ii) Dynamic linking and dynamic loading.

iii) LEX and YACC.

b) Construct LL(1) parsing table for following grammar. (10)

$S \rightarrow aBDh$

$B \rightarrow cC$

$C \rightarrow bC \mid \epsilon$

$D \rightarrow EF$

$E \rightarrow g \mid \epsilon$

$F \rightarrow f \mid \epsilon$