

Q.P. Code : 1965

(3 Hours)

[Total Marks : 100]

N.B.: (1) Question No. 1 is compulsory.

(2) Attempt any FOUR questions from remaining questions.

(3) Assume suitable data if necessary.

1. Solve any Four from the following: 20
 - (a) Differentiate between procedure calls and macro calls.
 - (b) List and explain the phases of compiler.
 - (c) Explain the functions of loader.
 - (d) What is forward reference problem? How is it handled in two pass assembler?
 - (e) Explain the operator precedence parsing.
2.
 - (a) Draw the flowchart for one-pass macro processor and explain databases used. 10
 - (b) Explain the design of dynamic linking loader in detail. 10
3.
 - (a) Explain different storage allocation strategies. 10
 - (b) Explain the various forms of intermediate code used by compiler. 10
4.
 - (a) Distinguish between top down and bottom up parsing. Explain LALR parser. 10
 - (b) Explain the two pass assembler with respect to flowchart and data structures. 10
5.
 - (a) Explain with suitable example, the concept of syntax directed translation. 10
 - (b) What is code optimization? What are various strategies for code optimization? 10
6.
 - (a) Explain with the help of diagram the concept of activation record. 10
 - (b) Explain with example nested macros. 10
7. Write short notes on (Any Four): 20
 - (a) LEX and YACC
 - (b) SPARC assembler
 - (c) JAVA compiler
 - (d) Linkage editor
 - (e) Bootstrap loader