

Roll No.....

Total No. of Questions : 13]

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Paper ID [A0222]

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BCA (502) (Old) (Sem. - 5th)**SYSTEM SOFTWARE****Time : 03 Hours****Maximum Marks : 75****Instruction to Candidates:**

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

Section - A**(15 × 2 = 30)****Q1)**

- a) Define System Programming.
- b) What is the significance of symbol table in designing an Assembler.
- c) What are the components of system software?
- d) Give example of language which uses more than one pass for compiling the program.
- e) Differentiate between phase and pass.
- f) What is a macro?
- g) Differentiate between token and a Uniform Symbol.
- h) What do you understand by code generation?
- i) What is the significance of memory allocation with regards to compilers?
- j) What are the various optimization techniques used in compiler design?
- k) What are the various functions performed by a general loader?
- l) What are the advantages of dynamic linking?
- m) List the disadvantages of binding at load time over binding at assembly time.
- n) Why is it necessary to relocate a program in memory?
- o) What is Bootstrapping?

Section - B**(9 × 5 = 45)**

- Q2)** Discuss differences between single pass and two pass assembler.
- Q3)** Design a two pass assembler with the help of flow charts.
- Q4)** How modularity is attained in Assembler?
- Q5)** What are the advantages and disadvantages to perform the assembly of the compiled program in the compiler rather than using the standard system assembler?
- Q6)** Draw a block diagram of the phases of a compiler and indicate the main functions of each phase.
- Q7)** Discuss the techniques to attain optimization in the Compiler Designing.
- Q8)** Explain in detail features of macro facility.
- Q9)** Explain differences between compiler and interpreter
- Q10)** Explain the function performed by the Operating system in detail
- Q11)** Explain the designing of Editors.
- Q12)** What are various functions of loader? During what stage of loading each of them is performed in different schemes of loader.
- Q13)** Write short note on DBMS as system software.

