

Roll No. ....

Total No. of Questions : 09]

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May - 08  
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## Paper ID [CS210]

(Please fill this Paper ID in OMR Sheet)

B.Tech (Sem. - 4<sup>th</sup>)

SYSTEM PROGRAMMING (CS - 210)

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

### Section - A

Q1)

(10 × 2 = 20)

- a) What are the salient features of DOS editor?
- b) Differentiate between full screen editor and multi window editor.
- c) What is the need of assemblers?
- d) What do you understand by parse tree? How is it different than syntax tree?
- e) Define Finite automata.
- f) List the various software tools used for debugging.
- g) What is dynamic binding?
- h) What are real operating systems?
- i) List the functions of loaders.
- j) What is the purpose of shells in operating system?

### Section - B

(4 × 5 = 20)

- Q2) Discuss with the help of examples different types of tools used to design compilers.
- Q3) Explain the working of two pass assembler with an example. Draw the flow chart of two pass assemble also.

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- Q4)** Describe the working of shift reduce parser with an example.
- Q5)** What do you understand by memory management techniques in operating system? Explain them.
- Q6)** Design a deterministic finite automata (DFA) that accepts the language  $(ab)^* abb$ .

**Section - C**

**(2 × 10 = 20)**

- Q7)** Differentiate between the followings:
- (a) LEX and YACC.
  - (b) Syntax and Semantics.
- Q8)** What are assembler directives? Explain the function of EQU, START.
- Q9)** What are the three major areas in which the operating system divides its services? Give examples and explain.

