

Roll No.

Total No. of Pages 02

Total No. of Questions : 09

B.Tech. (Sem. – 4th)
SYSTEM PROGRAMMING
SUBJECT CODE : CS - 210
Paper ID : [CS210]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hrs.

Max. 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

(10 *2 = 20 Marks)

Q1.

- a) What do you mean by Literal table?
- b) What is the role of a linker in program execution?
- c) Describe the term Finite automata and its significance.
- d) What is shell? How it is different from kernel?
- e) What is the difference between an editor and word processor?
- f) What is Bootstrapping of a compiler?
- g) What is operating system and its role in computer system?
- h) What is the advantage of multi-pass assembler over single-pass assembler?
- i) Differentiate between relocatable and self-relocating programs.

j) What is the purpose of system calls?

SECTION - B

(4*5 = 20 Marks)

- Q2. What Data structures are required in Pass I of an assembler for the purpose of assembly? Describe in brief.
- Q3. In what way, the direct linking loading is better than relocating loading?
- Q4. What do you mean by debugging? Briefly discuss the different debugging schemes.
- Q5. Differentiate between Macro and Subroutine with a suitable example.
- Q6. Discuss in detail the advantages of dynamic linking over static linking.

SECTION - C

(2*10 = 20 Marks)

- Q7. What do you mean by Multi-pass and single-pass compiler? Name different phases of a compiler and explain how intermediate code generation phase is associated with syntax analysis and code optimization phase.
- Q8. What is editor? Name various types of editors. Explain in detail the main commands of vi-editor.
- Q9. Write short notes on the following:
(a) Kernel Design.
(b) Booting techniques.