

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CSE/IT) (2011 onwards) (Sem.-4)

SYSTEM PROGRAMMING

Subject Code : BTCS-405

Paper ID : [A1187]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. Write briefly :

- a) What are the various compiler writing tools?
- b) Why it is necessary to reallocate a program in memory?
- c) What is a token in lexical analysis?
- d) List disadvantage of binding at load time over binding at assembly time.
- e) What is a look ahead operator?
- f) What is a recursive macro expansion?
- g) What is the difference between line editor and text editor?
- h) What is debugging?
- i) What are the various debugging techniques?
- j) What is semantics analysis?

SECTION-B

2. What is the difference between phase and a pass? Give example of a language which uses more than one pass.
3. What are the various data bases required in a two pass assembler? Explain the format of each of them.
4. Explain the sequence of hardware operation performed within the instruction interpreter for the add instruction.
5. Explain the following address constants with examples :
 - a) absolute
 - b) simple relocatable
 - c) complex relocatable
6. In a two pass direct linking loader what is the function of PASS – 1?

SECTION-C

7.
 - a) What is a device driver? Why is it required?
 - b) What are the various features for the design of an editor?
8. What are the various functions of loader? During what stage of loading each of them is performed in the different schemes of loaders?
9. What are the various instructions formats available on microprocessor you have studied? Explain with examples