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Total No. of Printed Pages: [01]

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B.Sc. (IT) (Semester –3rd)
SYSTEM PROGRAMMING
Subject Code: BITE1-312
Paper ID: [130414]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt the following:

- a. What do you mean by Dynamic Loading?
- b. What is interpreter?
- c. What is the difference between a phase and a pass?
- d. Define the role of OPTAB and SYMTAB.
- e. What is the role of lexical phase in compiler design?
- f. Define Symbol Table.
- g. Differentiate LEX and YACC.
- h. What do you understand by relocation and linking?
- i. Define characteristics of bootstrap loader.
- j. What do you mean by ambiguity of grammar?

Section – B

(5 marks each)

- Q2. Describe tasks and data structures considered for the design of a macro preprocessor
- Q3. What is debugging Explain different approaches adopted by programmers for debugging?
- Q4. Compare one pass and two pass compilers. Explain various parameter passing mechanisms for functions.
- Q5. What is the purpose of the code generation phase? Explain with example.
- Q6. What is an overlay? Explain overlay structured program and its execution.

Section – C

(10 marks each)

- Q7. What is the requirement of optimization? Discuss machine independent optimization techniques.
- Q8. Explain the two-pass assembler in detail with block diagram.
- Q9. What do you mean by text editor? What are its features and discuss any two text editors in detail.