R13

Set No. 1

IV B.Tech I Semester Supplementary Examinations, February/March - 2018
SYSTEMS PROGRAMMING
(Electronics and Computer Engineering)

Time: 3 hours   **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1. a) Define language processor? Explain why is it used?   [4]
    b) State and explain any three looping statements in assembly language?   [3]
    c) How the Assembler gives Program Relocation Information to the Loader?   [4]
    d) Give an example to show to generate unique labels in macros?   [4]
    e) State and explain the basic functions of a loader?   [4]
    f) State and explain the use of debug monitor?   [3]

PART–B *(3x16 = 48 Marks)*

2. a) Explain the Lexical analysis phase of a language processor?   [6]
    b) Discuss briefly about pass 2 of a compiler in detail?   [10]

3. a) Write an assembly language code to find the factorial of a given number?   [10]
    b) Write an assembly code to find greatest of a given numbers?   [6]

4. a) Explain the data structures used by Two pass assembler?   [8]
    b) Describe how the program blocks are assembled?   [8]

5. a) Explain in detail the expansion processing of nested macro calls?   [8]
    b) List the data structures used by a macro processor? Explain.   [8]

6. a) With an example program explain how linking and loading is done by a
        loader?   [8]
    b) Explain the design of machine independent loaders?   [8]

7. a) Explain in detail about the concept of interactive debugging system?   [8]
    b) What are the phases in editing process? Explain   [8]