R13

Set No. 1

IV B.Tech I Semester Regular/Supplementary Examinations, October/November - 2017
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) Differentiate between a compiler and interpreter?   [4]
   b) Elaborate Declarative statements in Assembly Language?   [3]
   c) Explain why assembler makes two passes over a Source program?   [4]
   d) Explain how a Macro is different from subroutine?   [3]
   e) Describe the various Data structures used by linking loaders?   [4]
   f) Illustrate the role of editing filter in a typical editor structure?   [4]

PART–B *(3x16 = 48 Marks)*

2. a) Discuss the compilation process with a suitable example.   [10]
   b) Explain the syntax analysis phase of a language processor   [6]

3. a) Write an assembly language code to find a given number is prime or not?   [10]
   b) Compare and contrast among the machine code and assembly code.   [6]

4. a) Explain how control sections are handled by an Assembler?Explain   with   an
      example.   [8]
   b) List out the functions of two pass assembler.   [8]

5. a) Describe the machine independent features of macro processor.   [8]
   b) State and explain the algorithm for one pass macro processor.   [8]

6. a) Explain the steps involved in the design of direct linking loader.   [10]
   b) Describe the facilities available in MS DOS linker for program linking.   [6]

7. a) With a neat block diagram explain the structure of an editor.   [12]
   b) Compare and contrast among line editor and screen editor.   [4]