Code No: NR310506 **NR**

III B.Tech I Semester Supplementary Examinations, November 2006
SYSTEMS PROGRAMMING
(Common to Computer Science & Engineering and Computer Science & Systems Engineering)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Distinguish between assembly language and high level language.
   (b) Explain about Intel Pentium architecture.
   (c) Add the following binary numbers.

000011011	01010101	00001111
111111111	10101010	11110000

[4+9+3]

2. Explain Shift and Rotate Instructions and their usage in Arithmetic operations, specifying an example? [16]

3. Write an Assembly Language program to check whether the following Strings named with S1='hibernation', S2='hibernations' are equal or not? [16]

4. (a) What is meant by a MACRO? With suitable example explain a MACRO instruction?
   (b) Explain the pass-2 macro definition and expansion algorithm. [8+8]

5. Discuss the features of BIOS INT 10H functions. [16]

6. (a) Explain the format of directory entry for each file created on a disk.
   (b) What is a cluster ? What is its purpose ?
   (c) A file is 74 bytes long. What is the disk space used for cluster sizes 2,4 and 8? [5+5+6]

7. (a) Write a program to read sectors from disk into memory using BIOS.
   (b) Under which circumstances a programmer choose BIOS INT 13H? [8+8]

8. Explain the design of pass 1 and pass 2 assembler with neat flow charts. [16]

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