MEVD–301(B)

M. Tech. (Third Semester) EXAMINATION, Feb., 2010

EMBEDDED SYSTEM PROGRAMMING

[MEVD–301(B)]

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 40

Note : Attempt any *five* questions. All questions carry equal marks.

1. (a) Discuss the features of Linux Operating System.
   (b) Write an algorithm and ac program to find the smallest prime number larger than a given integer *x*.
2. (a) Discuss pre-emptive scheduling versus co-operative scheduling of real time operating system.
   (b) Explain Modeling real time system with G00FEE.
3. (a) Explain the following :
   (i) Mutual exclusion
   (ii) Dead lines
   (iii) Concurrency
   (iv) Multitasking
   (b) Discuss the different types of memory.
4. (a) Elaborate on the Data Representation formats.
   (b) How is memory management achieved ?

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5. (a) Explain a data flow which employs time sliced multitasking.
   (b) Explain scheduling based on execution trajectory.
6. (a) Discuss the challenges and trends in embedded systems.
   (b) Discuss the following utilities :
   (i) Objcopy
   (ii) Objdump
7. Write brief notes on the following :
   (i) Linkers
   (ii) Loaders
   (iii) Debuggers
   (iv) Profilers
8. Write short notes on any *two* of the following :
   (a) Shell programming
   (b) Space sensitive programming
   (c) Profilers and Test coverage tools