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Roll No .....

**MEVD - 302(B)****M.E./M.Tech. III Semester**

Examination, June 2016

**Embedded System Programming****(Elective-IV)****Time : Three Hours****Maximum Marks : 70**

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) What are the basic function of shell? Explain the different types of shells. 7  
b) Write a shell script so that distance between two cities is entered in kilometers through keyboard and it is printed in meters? 7
2. a) List the application of stack, queue, linked list, array, graph tree. 7  
b) Explain with example various loop used in C programming. 7
3. a) What are the main components of an embedded system? Give few examples for small scale embedded system. 7  
b) Explain concurrent software design in detail. 7

4. a) What is the minimum software environment you need to create an embedded C program? Write strengths and weakness of "Super loops"? 7  
b) Give the format of PSW register of 8051 microcontroller. 7
5. Define the following terms 14  
a) Assembler  
b) Challenges in embedded system  
c) Objcopy add Objdump
6. a) What are the difference between the microprocessor and microcontroller? Give some example. 7  
b) Explain linker and loaders. 7
7. a) How do you write software to read from or write to the port on an 8051 microcontroller? 7  
b) Compare various kind of memory in terms of read speed, write speed, write times. 7
8. Write a short notes (Any two) 2×7=14  
a) IO programming models  
b) LINUX operating system  
c) 684C11 microcontrollers

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