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Roll No .....

**MEVD-205**  
**M.E/M.Tech., II Semester**  
 Examination, June 2017  
**Embedded Computing System Design**  
*Time : Three Hours*

Maximum Marks : 70

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

1. a) Explain in detail the design process in embedded system.  
 b) Explain, what are the challenges of embedded system?
2. a) Explain the various levels of embedded system design process.  
 b) Explain ARM processor and memory organisation. How do you return from a ARM procedure?
3. a) Explain the difference between ARM processor and SHARC processor.  
 b) Explain the memory organisation in embedded system.
4. a) How the CPU performance can be improved by pipelining and super scalar?  
 b) Explain CPU BUS and BUS protocols. Draw a UML sequence diagram that shows a four-cycle handshake between a bus master and a device.

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5. a) Explain assembly, linking and loading steps in the compilation process with the help of block diagram.  
 b) Explain the program design, program size and execution time.

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6. a) Explain the working of software modem.  
 b) What is the quality assurance in embedded system?
7. a) What do you understand by design methodology? What are the basic goals for design process for embedded computing systems?  
 b) Explain the case study of internet enables system of an embedded system.
8. Write short note on any two:
  - a) System design techniques
  - b) Models of program
  - c) Flow control

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