

MEVD-205

M.E./M.Tech. (Second Semester)

EXAMINATION, June 2012

(Grading/Non-Grading)

EMBEDDED COMPUTING SYSTEM DESIGN

Time: Three Hours

Maximum Marks: GS:70

Note: Attempt any five questions.

1. (a) Explain in detail the design process in embedded system.
(b) What are the various problems that must be taken into account in embedded system design?
2. (a) Explain ARM processor, architecture, instruction set programming.
(b) Discuss the data operations of ARM processor.
3. (a) What are the challenges of Embedded System? Explain.
(b) List the hardware units that must be present in the embedded systems. Explain each in detail.
4. Explain the various interrupt handling mechanisms in ARM processor.
5. (a) Explain the case study of an embedded system for a Networking and Internet Enabled system.
(b) Explain the various software development tools with their applications used in embedded system design and development.
6. Explain in detail the design issues and techniques in embedded system development.
7. (a) What is target system? How does it differ from final embedded system?
(b) What is virtual device driver? Explain any three of them in details.
8. (a) What is the quality assurance in embedded system?
(b) How the program size and execution time affects CPU performance.