INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)

M.Tech II Semester End Examinations (Supplementary) - January, 2018
Regulation: IARE–R16
EMBEDDED SYSTEM ARCHITECTURE
(Embedded Systems)

Time: 3 Hours   **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

UNIT – I

1. (a) What are the challenges faced while designing an embedded system.   **[7M]**
   (b) Explain the compilation process with neat diagram.   **[7M]**

2. (a) Differentiate Von Neumann and Harvard architectures.   **[7M]**
   (b) Explain the instruction level parallelism with example.   **[7M]**

UNIT – II

3. (a) Write short notes on interrupts. Draw the structure of various types of interrupts **[7M]**
   (b) Write the differences between RISC and CISC processors.   **[7M]**

4. (a) Write short notes on internal processor design.   **[7M]**
   (b) Define ROM and explain different types of ROM.   **[7M]**

UNIT – III

5. (a) Define bus communication. Explain about PCI bus.   **[7M]**
   (b) Explain memory management concept in processor.   **[7M]**

6. (a) Write short notes on Input/Output performance using various modules.   **[7M]**
   (b) Write the differences between serial and parallel communication.   **[7M]**

UNIT – IV

7. (a) Explain HTTP Protocol with an example   **[7M]**
   (b) Explain IP fragmentation mechanism with structural design.   **[7M]**

8. (a) Explain the middleware with in embedded system model.   **[7M]**

    (b) Explain User Datagram Protocol with an example.   **[7M]**

UNIT – V

9. (a) Write short notes on debugging tools.   **[7M]**

    (b) Explain in detail the ABCs of embedded system.   **[7M]**

10. (a) Illustrate about various software utility tools and explain in detail all the tools   **[7M]**

    (b) Distinguish between static and dynamic testing methods.   **[7M]**

− ∘ ∘ ◯ ∘ ∘ −