Code No: **R164104D**

R16

Set No. 1

EMBEDDED SYSTEMS
(Electronics and Communication Engineering)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any FOUR questions from Part-B
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PART–A *(14 Marks)*

1. a) Discuss Testability Quality attributes of embedded systems. [3]
    b) Explain the usage of Buffers in embedded hardware circuit. [2]
    c) Write the drawbacks of assembly level language. [2]
    d) Define scheduler. [2]
    e) What are the advantages of simulator based debugging? [2]
    f) What is the difference between interpreters and compilers. [3]

PART–B *(4x14 = 56 Marks)*

2. a) What is an Embedded system? Give the classification of embedded systems. [7]
    b) Discuss the following Operational Quality attributes of embedded systems: [7]
        i.   Response
        ii. Security

3. a) What is the Synchronous Communication? Discus different ways of [7] Synchronization.
    b) Discuss in detail about wireless devices [7]

4. a) What is ISR? And discuss the features of ISR [6]
    b) Explain briefly about device driver programming [8]

5. a) Write short note on Shared Memory concept. [7]
    b) What are the issues to be considered in Hardware software co-design? Explain [7]

6. a) State the uses of assembler and disasembler in embedded application [7] development.
    b) Explain in detail about Embedded software development-process. [7]

7. a) Explain in detail about how testing will done on host machine. [7]
    b) Discuss Simulators and Interpreters in detail. [7]

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