

Code No: **R164104D**

R16

Set No. 1

IV B.Tech I Semester Regular/Supplementary Examinations, Jan/Feb - 2022

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

PART-A (14 Marks)

1. a) Discuss Evolvability Quality attributes of embedded systems. [3]
- b) Explain the usage of latch in embedded hardware circuit. [2]
- c) Write the drawbacks of High level language. [2]
- d) Write short note on ICE. [2]
- e) What are the types of files generated on cross-compilation? [3]
- f) Describe the Debugging tool in embedded system implementation and testing [2]

PART-B (4x14 = 56 Marks)

2. a) What is the role of embedded system present life? Discuss major application areas of embedded systems. [7]
- b) Discuss below Operational Quality attributes of embedded systems [7]
 - i. Safety
 - ii. reliability
3. a) Discuss about the types of I/O devices used in Embedded hardware. Give examples. [7]
- b) Explain briefly about Real time clock. [7]
4. a) Explain in detail about any one Embedded Firmware design approach. [7]
- b) Explain briefly about Mixing Assembly and high level language [7]
5. a) What are the difference between OS and RTOS? [7]
- b) Discuss different fundamental issues in hardware software co-design [7]
6. a) Discuss in detail about the role of Integrated Development Environment (IDE) for embedded Software development. [7]
- b) Explain the advantages and limitations of simulator based debugging. [7]
7. a) Explain briefly about Computer-Aided Design (CAD) and hardware [7]
- b) With neat sketches explain about interpretation. [7]

