

Code No: 137CH

**R16**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, March - 2021**

**EMBEDDED SYSTEM DESIGN**

**(Common to ECE, EIE, ETM)**

**Time: 3 Hours**

**Max. Marks: 75**

**Answer any Five Questions  
All Questions Carry Equal Marks**

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1. What is an embedded system? Explain the different applications of embedded systems. [15]
2. Discuss the Characteristics and Quality Attributes of Embedded Systems. [15]
3. What is Application Specific Integrated Circuited (ASIC)? Explain the role of ASIC in Embedded System Design. [15]
4. Explain on-board and external communication interfaces in detail. [15]
5. What is watchdog timer? Explain its role in embedded system design? [15]
6. What is the role of reset circuit and Brown-out Protection Circuit in embedded system? [15]
7. Explain how 'accurate time management' is achieved in real time kernel. [15]
8. What is device driver? Explain the architecture of device drivers. [15]

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