

Code No: **R41042**

**R10**

**Set No. 1**

**IV B.Tech I Semester Supplementary Examinations, October/November - 2017**  
**EMBEDDED SYSTEMS**  
**(Common to Electronics and Communication Engineering & Electronics and Computer Engineering)**

**Time: 3 hours**

**Max. Marks: 75**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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- 1 a) Explain how embedded system is designed to serve the purpose of  
(i) Data collection/storage/Representation [8]  
(ii) Data communication [7]  
(iii) Control.  
b) Explain the Memory selection for embedded system. [7]
- 2 a) Explain the application specific embedded system with one Example. [8]  
b) Explain silicon providers, solution providers, and tools and platform providers of Automotive embedded Market. [7]
- 3 a) Explain schematic design using OrCAD capture CIS. [8]  
b) Explain about the PCB layout design. [7]
- 4 a) Discuss the Assembly Language based development in embedded firmware design. [8]  
b) Discuss the ISR concept and Multiple interrupts. [7]
- 5 a) Explain the different real time kernels and features that make real time. [8]  
b) Explain the concept of multithreading. [7]
- 6 a) Explain sequential program model for seat belt warning system. [8]  
b) Explain about the issues in embedded system design. [7]
- 7 a) Explain JTAG based boundary scanning for hardware testing. [8]  
b) Explain the role of simulator and emulator in embedded system development. [7]
- 8 Write short note on the following  
a) Interpreters  
b) Compilers  
c) Linkers [15]