

8E4094**8E 4094**

B.Tech. (Sem.VIII) (Main/Back) Examination, April/May- 2012
Electronics & Communication
8EC4.3 Microcontroller and Embedded Systems (Elective)

Time : 3 Hours

[Total Marks : 80
 [Min. Passing Marks : 24

Attempt any five questions selecting one question from each unit. All questions carry equal marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

UNIT - I

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| 1. | Explain the infrastructure of 8051 and explain the pin diagram of 8051. | 16 |
| OR | | |
| 1. | Explain all serial data interrupts of 8051 in detail. | 16 |

UNIT - II

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| 2. | Analyze the Jump and Call instructions of 8051 Assembly Language with suitable examples. | 16 |
| OR | | |
| 2. | Explain the all interrupts and return instructions for 8051 Assembly Language. | 16 |

UNIT - III

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| 3. | Explain interrupt structure in 8051 in detail. | 16 |
| OR | | |
| 3. | Explain the real time control with respect to 8051 with some case studies. | 16 |

UNIT - IV

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| 4. | Explain the digital and analog interfacing methods in detail and compare them. | 16 |
| OR | | |
| 4. | Compare serial I/O interface and Parallel I/O interface with one case study. | 16 |

UNIT - V

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| 5. | Explain MCU based measuring instruments in detail. | 16 |
| OR | | |
| 5. | What is Round Robin Scheduling and explain the application of this in any two areas. | 16 |