

Time: 3 hours

Max. Marks: 80

Note:

- Question 1 is compulsory.
- Solve any three from Q2 to Q6.
- All questions carry equal marks.

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- Q1. Solve any four from question no.1 (20)**
- A Explain the features and Applications of Embedded system. 5
- B Explain Microprocessor vs. Microcontroller 5
- C Write short note on Real Time Operating System. 5
- D Write the difference between C and Embedded C. 5
- E Explain classification of Computer Architecture 5
- Q2. (20)**
- A Explain the addressing modes of 8051 assembly language.
- B Explain the architecture of 8051 with the help of block diagram. 10
- Q3. (20)**
- A Explain the use of embedded system in designing home automation systems. 10
- B Explain the concept of function in Embedded C programming with an example. 10
- Q4. (20)**
- A Explain Looping statements in Embedded C with example. 10
- B Explain Arithmetic and Logical operators. 10
- Q5. (20)**
- A Explain the different types of registers used in 8051 Microcontroller. 10
- B How Seven Segment Display (SSD) interface with 8051 Microcontroller? 10
- Explain in details.
- Q6. (20)**
- A Explain Design challenges and common design metrics of Embedded systems 10
- B What is Assembly Language Programming? List and explain logical operators 10
- in assembly language.

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