19ITT204 MICROCONTROLLER AND EMBEDDED SYSTEMS

QUESTION BANK

Two Marks

UNIT 1

1. Differentiate Microprocessor and Microcontroller
2. List the applications of Microcontrollers
3. What is the goal of assembler directives?
4. Differentiate Microcontroller and Embedded systems.
5. List the applications of 8086 Microprocessor
6. What is the programming language of 8086?
7. What is flag in 8086 Microprocessor?
8. Is 8086 a RISC or CISC processor?
9. What are the interrupts of 8086?
10. What are the two logical units of 8086?

UNIT 2

1. Compare Memory mapped and Input output mapped I/O
2. Brief the types of interfacing devices.
3. Brief memory mapped I/O
4. Classify the types of addressing modes of 8086.
5. Why is interfacing needed in 8086 microprocessor?
6. How many interrupts can 8259 handle?
7. What are the registers in 8259?
8. What is RS-232 serial data standard?
9. What is DMA and its functions?
10. What is the need of 8255 PPI?

Unit 3

1. List the applications of embedded systems.

2. What is the quality attributes of embedded systems?

3. Compare ARM and 8051

4. When we call a system as a typical embedded system?

5. What is the difference between instruction format and addressing modes?

6. What is keyboard interfacing and how it is interfaced with 8051?

7. What is SoC in embedded system?

8. What are the components of embedded processor?

9. What are the advantages of embedded systems?

10. What is arm processor used for?

DETAILED QUESTIONS

UNIT-1

1. Elucidate the importance of assembly languages and the evolution of Microcontrollers.

2. Draw and explain the internal architecture of 8086 Microprocessor.

3. Elucidate the importance of computer languages and the assembly language programming with example.

4. How addressing modes can be used in specifying the operands? Discuss in detail about the different addressing modes of 8086

5. With examples brief about the instruction sets of 8086.

UNIT 2

1. Justify the need of interfacing requirements for the processors and explain one general purpose interfacing device.

2. Classify the Memory mapped and I/O mapped I/O

3. Brief in detail about the implementation of the pipelining concept in the architecture of 8086

4. Describe in detail about the 8259 with the architecture diagram.

5. How the processor understand on which key is pressed and explain how 8279 works?

UNIT-3

1. Explain in detail about the 8051 Microcontroller with the functional block diagram.

2. What are the embedded systems? Explain in detail about the characteristics and the quality attributes of embedded system.

3. Justify the need of interfacing requirements for the processors and explain how LDC can be interfaced with 8051.

4. How addressing modes can be used in specifying the operands? Discuss in detail about the different addressing modes of 8051.

5. Explain in detail about the ARM processor with its architecture.