

Microcontroller and Embedded Systems(22CSE142)

Question Bank

Module1: Microprocessors versus Microcontrollers

1. Differentiate between Microprocessor and Microcontroller
2. Explain major design rules of RISC processor
3. Differentiate between RISC and CISC PROCESSOR
4. Explain ARM processor with neat diagram. (ARM core data flow model)
5. Explain the architecture of typical embedded device based on ARM core.
6. Write a note on ARM bus technology.
7. Write a note on memory hierarchy.
8. What is Pipelining? Explain 3-stage pipelining of ARM processor with example.
9. Write a note on core extension
10. Explain the cache and tightly coupled memory extensions to processor core with the help of neat diagrams
11. List the special purpose registers of ARM processor.
12. Draw the format of CPSR. Explain condition flags and processor modes of ARM processor.
13. Explain Banked Registers with neat diagram.
14. Explain in detail the seven processor modes of ARM.
15. Explain with help of diagrams Von Neumann architecture with cache and Harvard architecture with TCMs
16. Describe the AMBA Bus Protocol in depth.