

CU 5092 Real Time Embedded Systems

Important 2 Marks Questions

Unit I

1. What are the advantages and disadvantages of load-store multiple Instructions?
2. Mention the importance of instruction scheduling and conditional execution of ARM instructions.
3. Mention the parameters used to evaluate the performance of the CPU.
4. List out the functional and non-functional requirements that needs to be satisfied by embedded system.
5. What is an embedded computer system?
6. Illustrate the importance of design methodology.
7. State the major goals of embedded system design.
8. List the functions of ARM processor compound to other processors.
9. Identify the various issues in real time computing.
10. Mention the challenges in embedded computing system design.

Unit II

1. What are the debugging challenges?
2. Draw the timing diagram of Bus read and write operation.
3. Draw the stages in a four cycle handshake protocol.
4. What is meant by symbol table?
5. Define data flow graph.
6. List out the various compilation techniques.
7. Mention the different types of data transfer in USB.
8. What do you mean by Control Bus in CPU?
9. Explain the important stages of DMA.
10. List the difference between program location counter and program counter.

Unit III

1. What are the three conditions that must be examined by the re-entrant function?
2. How is a Real time operating system uniquely different than a general-purpose OS?
3. Distinguish between a task and a process.
4. What is context switching?
5. Compare between initiation time and completion time.
6. What do you mean by time quantum?
7. Define rate monolithic scheduling.
8. Define power management policy.
9. What is response time?
10. Determine the important characteristics of Multitasking.

Unit IV

1. Draw the CAN data frame packet format.
2. Differentiate single hop network front multi hop network.
3. Mention the necessity for a hardware accelerator in embedded system.
4. List the OSI layers from lowest to highest level abstraction.
5. What is a distributed embedded architecture?
6. Mention the networks for distributed embedded systems.
7. Define message delay.
8. Illustrate some internet enabled embedded systems.
9. Explain the advantages of hardware implementations.
10. Why we Prefer shared memory multiprocessor?

Unit V

1. Why most designers use FOSS tools in embedded system development?
2. What are the methods for testing a software modem?
3. Draw the block diagram of FSK detection Scheme in MODEM?
4. Evaluate the UML diagram for Data Compressor.
5. Outline the state diagram of encoding behaviour.
6. Identify the advantages of Software modem?
7. Elaborate the function of digital camera.
8. Describe about White balance.
9. Draw the brayer pattern of color image.
10. Define flush in data compressor.