Sunbeam Institute of Information Technology, Pune and Karad

Microcontroller Programming and Interfacing Rapid Fire Sheet

Course: eDESD **Batch:** Sept 2021

Module Name: Microcontroller Programming and Interfacing

Rapid Fire Questions

1. What is difference between microcontroller and microprocessor?
2. What is difference between I/O mapped I/O and Memory mapped I/O?
3. What is pipeline? What are limitations? Explain pipeline in ARM architecture.
4. What is ARM 7 pipeline? What are limitations of pipeline?
5. What is Difference between Fast GPIO and Legacy GPIO?
6. What is Difference between Von-Neumann and Harvard?
7. Explain ARM Cortex-M modes? Explain register banking. Why FIQ is faster than IRQ?
8. Explain protocols in detail: RS232 , I2C , SPI , PS2
9. What is wired AND in I2C? What is clock stretching? What is bus arbitration?
10. Which programmer you have used for ARM?
11. What are ARM Processor states?
12. Compare ARM, AVR, PIC and 8051 controllers.
13. In 8086 architectures what is difference in SP and BP and SS registers?
14. Explain watch dog timer and brown out detection.
15. Explain the Instruction Set for ARM in detail.
16. Give overview of CAN protocol? Where CAN find its main usage.
17. What is the use of the AMBA interface and explain it in detail.
18. What are the types of addressing modes in ARM?
19. What is Translation Lookaside Buffer (TLB)?
20. What is single issue multiple data (SIMD) processing?
21. How will you allow Thumb C code to call the ARM assembly Code?
22. What is the use of 'SWI' in ARM assembly?
23. Tell about the Exception Handling in ARM processor. What does the ARM Core do automatically for every exception?
24. Explain memory map in ARM architecture.
25. Explain difference between ARM or Thumb mode?

26. Explain about the bits in CPSR register.
27. What is an interrupt? Write a C program to handle external interrupt for an ARM chip.
28. Explain ARM Cortex-M3 architecture.