(PL-III Lab)

Embedded Operating System

Question Bank for Oral Examination

1. What is Operating System
2. Functions of OS.
3. Which are low level software utilities.
4. Differentiate between security & protection .
5. Which are the Criteria for selecting a scheduling algorithm.
6. Distinguish between ‘release time’ & ‘scheduling time’ of a task.
7. Distinguish(with example) between aperiodic & sporadic tasks.
8. Explain types of Real Time Scheduling Algorithms
9. What is importance of a ‘timer’ in a real time kernel?
10. Explain types of real time tasks.
11. Name & Explain two IPC mechanisms .
12. How is concurrency achieved in a system which has multiple tasks to perform?
13. What is (Define) embedded System.
14. What is device drivers? Explain classifications of device drivers?
15. Explain layers associated with device drivers?
16. What is LSB & OSDL?
17. What is OSDL.
18. What is Moblin(Mobile Linux)
19. What is Embedded system.
20. What is RTOS(Real time OS)
21. Qualities of good RTOS?
22. Types of RTOS
23. Differentiate between RTOS, Distributed OS, Embedded OS.
24. Explain Rate Monotonic Algorithm
25. Role of Bootloader.
26. Which are the Data types of ARM.
27. RISC vs CISC.

28. What is ARM SoC.
29. Explain 3 profile of ARM CORTEX.
30. List & Explain register set of ARM.
31. Difference between BOIS and Bootloader.
32. Explain Boot process in detail .
33. What is embedded development environment?
34. How kernel in initialized in Linux?
35. What is Busy Box?
36. What is Cross Development Environment
37. How storage consideration & Memory management works in embedded system.
38. Differentiate between NAND Flash and NOR flash.
39. Role of init thread.
40. Explain kernel initialization.
41. What is UBOOT.
42. What is POST.

43. Features of BeagleBone Black.
44. Study layout structure (Components) of BeagleBone Black.
45. Study architecture of ARM processor.
46. Different components of embedded Anroid.
47. What is Zygote? / Role of Zygote?
48. Different Debugging tools/techniques used in embedded application. (Unit V)
49. Ways to access root of BeagleBone Black. (ssh and minicom settings)
50. How GPIO pins of BeagleBone Black can be access? (export and value parameters)
51. How GPIO pin value is calculated?
52. What is the use of expansion headers ?
53. Which are the expansion headers are there on BeagleBone Black.

<u>NOTE :</u> Prepare Second unit properly for the oral