

7. In contiguous allocation:
- (a) each file must occupy a set of contiguous blocks on the disk
 - (b) each file is a linked list of disk blocks
 - (c) all the pointers to scattered blocks are placed together in one location
 - (d) None of these
8. Consider a disk with 10 blocks, where blocks 1, 4, 6, 8, 10 are free and the rest are allocated. The free space bit map would be
- (a) 1001010101
 - (b) 1010100101
 - (c) 1001010111
 - (d) 0110101010
9. The dmesg command
- (a) Shows user login logoff attempts
 - (b) Shows the syslog file for info messages
 - (c) Kernel log messages
 - (d) Shows the daemon log messages
10. Which of the following is FALSE?
- (a) Context switch time is longer for kernel level threads than for user level threads
 - (b) User level threads do not need any hardware support
 - (c) Related kernel level threads can be scheduled on different processors in a multiprocessor system
 - (d) Blocking one kernel level thread blocks all other related threads

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Demonstrate about the evolution of virtual machine. Also explain how virtualization could be implemented in Operating system. (8)
12. Explain the FCFS, Preemptive and Non-Preemptive versions of Shortest Job First and Round Robin (time-slice2) scheduling algorithms with Grantt Chart for the four processes given. Compare their average turn around and wait time. (8)

Process	Arrival Time	Burst time
P1	0	10
P2	1	6
P3	2	12
P4	3	15

13. With neat diagram, Explain the process of segmentation. (8)

14. State about Disk Formatting and Boot Block. (8)
15. Explain in detail the design principles, kernel modules, process management, scheduling in LINUX system. (8)