Reg. No. : | | | | | | | | | | |

Question Paper Code: 43805

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Third Semester

Computer Science and Engineering

14UCS305 - OPERATING SYSTEMS

(Regulation 2014)

Duration: 1:45 hour Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

(Answer any ten of the following questions)

1. What is meant by user visible processor registers?
2. Define interrupt. How will you handle interrupt?
3. What is meant by context switch?
4. What is non - preemptive scheduling? Write two examples for non-preemptive scheduling algorithms
5. What is Belady's anomaly?
6. Define effective access time.
7. What are the functions of virtual file system (VFS)?
8. What is disk stripping?
9. What is meant by Para virtualization?
10. List out the components of DNS.
11. What are the benefits of multithreaded programming?

12. What are the various scheduling criteria for CPU Scheduling?

13. Differentiate between page and segment?

14. What are the operations that can be performed on a directory?

15. List the various key features of VM ware server virtualization.

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

16. Demonstrate about the evolution of virtual machine. Also explain how virtualization could be implemented in Operating system. (10)

17. 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. (10)

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

18. With neat diagram, Explain the process of segmentation. (10)

19. State about Disk Formatting and Boot Block. (10)

20. Explain in detail the design principles, kernel modules, process management, scheduling in LINUX system. (10)