BE Semester-_V_IT_ Question Bank

(Operating Systems)

All questions carry equal marks (10 marks)

Q.1	What is Operating System? Explain different types of Operating Systems.
Q.2	State and Explain various function performed by Operating System.
Q.3	Explain different view of Operating System.
Q.4	State the difference between program and process. Also Explain Process Control Block with help of diagram.
Q.5	What is Process State? Explain different state of a process with various queue generated at each stage.
Q.6	What do you mean by thread? Compare process and thread. Also explain various types of thread in detail.
Q.7	Explain the following terms: 1) Race Condition 2) Mutual Exclusion
Q.8	What is Scheduling and Scheduler? Explain queuing diagram representation of process scheduler with figure.
Q.9	What is Semaphore? Explain Producer Consumer problem in detail.
Q.10	Explain Multiprogramming with Fixed Partition.
Q.11	What do you mean by Deadlock Avoidance? Explain the use of Banker's Algorithm for Deadlock Avoidance with illustration.
Q.12	What is Deadlock? List the conditions that lead to Deadlock. How Deadlock can be prevented?
Q.13	Explain and compare Pre-emptive and Non-Pre-emptive scheduling algorithm.
Q.14	Explain various Disk Arm Scheduling Algorithm with illustration.
Q.15	Write short note on Contiguous Allocation for File System Implementation.
Q.16	Explain Various Page replacement strategies.
Q.17	Explain the concept of Segmentation for memory management with example.
Q.18	Explain various file attributes and file operations in brief.
Q.19	What is Thrashing? When does it Occur? Explain.
Q.20	What is Paging? What is Page Table? Explain the conversion of Virtual address to physical address in paging with example.
Q.21	Explain the following terms 1) Critical Section 2) Deadlock 3) Kernel
Q.22	Explain Multiprogramming with Variable Partition with diagram.
Q.23	Explain Shortest Job First algorithm with example.
Q.24	Explain First come First Serve algorithm with example.
Q.25	Explain Priority Scheduling Algorithm with example.
Q.26	Explain the concept of locality in memory management.
Q.27	Explain interrupt handler in Input Output management in operating system.
Q.28	Explain Round Robin scheduling algorithm.
Q.29	Write short note on Linked List Allocation for File System Implementation .
Q.30	What is included in hardware and software in case of Input output

	management in operating system. Explain device controllers.
Q.31	Explain the role of direct memory access in case of input output management.
Q.32	What kind of errors can be generated in case of input output management in operating system? How error handling is done in case of input output management?
Q.33	What is the role of kernel and shell in UNIX operating system? Explain two system calls.
Q.34	Explain the hierarchy of file systems and directory operations in operating system.
Q.35	Describe the principles of security. Explain how user authentication can be achieved in operating system.
Q.36	Write a short note on multiprocessors.
Q.37	Write a short note on distributed operating system.
Q.38	Write a short note on access control list in case of file management.
Q.39	Explain reader's and writer's and dining philosopher problem? How it can be solved?

Q.40	Explain
	    (i) File system reliability
	    (ii) File system performance