DRONACHARYA COLLEGE OF ENGINEERING

KHENTAWAS, FARRUKHNAGAR, GURGAON, HR

Department: IT

Academic Session: (MAY- AUG 2021)

Lesson Plan with Assignment questions

Subject with code:Operating Systems (PCC-CSE-206G)

Name of Faculty with designation :Mr. Naveen (Assistant Professor)

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Write Lecture Wise Questions
	1	IV IT	I	Basic Terminologies: Concept of Operating Systems, Generations of Operating systems	Q1) Question related to Operating Systems Q2) Question related to Generations
	2	IV IT	I	Types of Operating Systems, OS Services	Q1) Question related to Types of Operating System Q2) Question related to OS Services
	3	IV IT	I	Processes: Definition, Process Relationship, Different states of a Process, Process State transitions	Q1) Process States Q2) Numerical
	4	IV IT	I	Process State transitions, Process Control Block (PCB), Context switching	Q1) Process Control Block Q2) Numerical
	5	IV IT	I	Thread: Definition, Various states, Benefits of threads, Types of threads, Multithreading.	Q1) Question related to various states of threads. Q2) Comparision of threads..
	6	IV IT	I	Process Scheduling: Foundation and Scheduling objectives, Types of Schedulers	Q1) Numerical Q2) Numerical
	7	IV IT	I	Scheduling criteria: CPU utilization, Throughput, Turnaround Time, Waiting Time, Response Time; Scheduling algorithms: Pre-emptive and Non-pre-emptive	Q1) Numerical Q2) Numerical
	8	IV IT	I	FCFS, SJF, SRTF, RR Scheduling.	Q1) Numerical Q2) Numerical
	9	IV IT	II	Inter-process Communication: Critical Section, Race Conditions	Q1) Question related to synchronization. Q2) Numerical.
	10	IV IT	II	Mutual Exclusion, The Producer\Consumer Problem	Q1) Numerical Q2) Numerical
	11	IV IT	II	Semaphores	Q1) Numerical Q2) Numerical
	12	IV IT	II	Event Counters, Monitors, Message Passing	Q1) Numerical Q2) Numerical

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Write Lecture Wise Questions
	13	IV IT	II	Classical IPC Problems: Reader's & Writer Problem, Dinning Philosopher Problem etc.	Q1) Question related to reader writers problem. Q2) Numerical
	14	IV IT	II	Synchrinization : Questions	Q1) Numerical Q2) Numerical
	15	IV IT	II	Definition, Necessary and sufficient conditions for Deadlock	Q1) Numerical Q2) Numerical
	16	IV IT	II	Deadlock Prevention, and Deadlock Avoidance	Q1) Numerical Q2) Numerical
	17	IV IT	II	Banker's algorithm, Deadlock detection and Recovery	Q1) Numerical Q2) Numerical
	18	IV IT	II	Deadlock : Questions	Q1) Numerical Q2) Numerical
	19	IV IT	III	Memory Management: Basic concept	Q1) Numerical Q2) Numerical
	20	IV IT	III	Logical and Physical address map, Memory allocation	Q1) Numerical Q2) Numerical
	21	IV IT	III	Contiguous Memory allocation – Fixed and variable partition–Internal and External fragmentation and Compaction	Q1) Numerical Q2) Numerical
	22	IV IT	III	Paging: Principle of operation – Page allocation – Hardware support for paging	Q1) Numerical Q2) Numerical
	23	IV IT	III	Protection and sharing, Disadvantages of paging	Q1) Numerical Q2) Numerical
	24	IV IT	III	Virtual Memory: Basics of Virtual Memory –	Q1) Numerical Q2) Numerical
	25	IV IT	III	Hardware and control structures – Locality of reference	Q1) Numerical Q2) Numerical
	26	IV IT	III	Page fault, Working Set, Dirty page/Dirty bit	Q1) Numerical Q2) Numerical
	27	IV IT	III	Demand paging	Q1) Numerical Q2) Numerical
	28	IV IT	III	Page Replacement algorithms	Q1) Comparison of page replacemnt algorithms Q2) Numerical
	29	IV IT	IV	File Management: Concept of File, Access methods, File types, File operation	Q1) Questions related to file access methods.
	31	IV IT	IV	Directory structure, File System structure	Q1) Questions related to file structures.
	31	IV IT	IV	Allocation methods (contiguous, linked, indexed), efficiency and performance.	Q1) Comparison of file allocation methods.

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Write Lecture Wise Questions
	32	IV IT	IV	Disk Management: Disk structure	Q1) Question related to disk structures. Q2) Numerical.
	33	IV IT	IV	Disk scheduling - FCFS, SSTF, SCAN, C-SCAN	Q1) Comparison of disk scheduling slgorithms. Q2) Numerical
	34	IV IT	IV	Disk reliability, Disk formatting, Boot-block, Bad blocks	Q1) Question related to disk formating. Q2) Numerical.
	35	IV IT	IV	Comparative Study of Latest Operating System	Q1) Comparison of different operating systems.

Remarks

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