Quantum University

Quantum School of Technology

Course / Topic wise Schedule of Teaching

Name of The Faculty :

Name of The Programme : **Diploma**

Name of The Paper : **Operating System**

Year / Sem : **3**

Paper Code : **CS1302**

Session : **2022-23**

Section :

Unit	Topic	No. Lecture taken	Teaching Methodology	CO / Bloom	Start Date	Complete Date	Reading References
Unit 1	Compiler, Assembler, Loader,	0	N/A	CO1 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Operating system, Linking, Loading and Executing a Program,	0	N/A	CO1 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Definition of Operating Systems, Functions of Operating System,	0	N/A	CO1 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Types of Operating Systems	0	N/A	CO1 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Batch Processing, Time Sharing	0	N/A	CO1 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Multiprogramming, Multiprocessing	0	N/A	CO1 / UN			Distributed Operating Systems: Concepts and Design by Pradeep K. Sinha (Wiley-Blackwell publication)
	Real Time Systems	0	N/A	CO1 / UN			Distributed Operating Systems: Concepts and Design by Pradeep K. Sinha (Wiley-Blackwell publication)
	Distributed Systems,Importance of Operating System	0	N/A	CO1 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
Unit 2	Job Scheduler	0	N/A	CO2 / UN			Operating System Concepts by AviSilberschatz and Peter Galvin
	Scheduling Criteria	0	N/A	CO2 / UN			Operating System Concepts by AviSilberschatz and Peter Galvin
	Process Scheduler, Scheduling algorithms	0	N/A	CO2 / UN			Operating System Concepts by AviSilberschatz and Peter Galvin
	Process synchronization	0	N/A	CO2 / UN			Operating System Concepts by AviSilberschatz and Peter Galvin

Unit 2	Critical section	0	N/A	CO2 / UN			Operating System Concepts by AviSilberschatz and Peter Galvin
	Introduction and necessary conditions of dead lock	0	N/A	CO2 / UN			Operating Systems: Internals and Design Principles by William Stallings
	, Dead lock avoidance	0	N/A	CO2 / UN			Operating Systems: Internals and Design Principles by William Stallings
	Dead lock detection, Dead lock Recovery	0	N/A	CO2 / UN			Operating Systems: Internals and Design Principles by William Stallings
Unit 3	Introduction	0	N/A	CO3 / UN			Distributed Operating Systems: Concepts and Design by Pradeep K. Sinha (Wiley-Blackwell publication)
	Logical and Physical address space	0	N/A	CO3 / UN			Distributed Operating Systems: Concepts and Design by Pradeep K. Sinha (Wiley-Blackwell publication)
	Virtual memory, Swapping	0	N/A	CO3 / UN			Operating System Concepts by AviSilberschatz and Peter Galvin
	, Single contiguous memory management, Fixed partition	0	N/A	CO3 / UN			Operating Systems: Internals and Design Principles by William Stallings
	Contiguous allocation	0	N/A	CO3 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Paging, Segmentation	0	N/A	CO3 / UN			Distributed Operating Systems: Concepts and Design by Pradeep K. Sinha (Wiley-Blackwell publication)
	Demand paging, Page replacement algorithms	0	N/A	CO3 / UN			Operating System Concepts by AviSilberschatz and Peter Galvin
	Thrashing	0	N/A	CO3 / UN			Operating Systems: Internals and Design Principles by William Stallings
Unit 4	Dedicated Devices	0	N/A	CO4 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Shared Devices	0	N/A	CO4 / UN			Distributed Operating Systems: Concepts and Design by Pradeep K. Sinha (Wiley-Blackwell publication)
	Virtual Devices	0	N/A	CO4 / UN			Distributed Operating Systems: Concepts and Design by Pradeep K. Sinha (Wiley-Blackwell publication)
	Storage Devices	0	N/A	CO4 / UN			Operating System Concepts by AviSilberschatz and Peter Galvin

Unit 4	Buffering	0	N/A	CO4 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Spooling	0	N/A	CO4 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
Unit 5	File concept	0	N/A	CO5 / UN			Distributed Operating Systems: Concepts and Design by Pradeep K. Sinha (Wiley-Blackwell publication)
	Access Methods	0	N/A	CO5 / UN			Operating Systems: Internals and Design Principles by William Stallings
	Directory Structure	0	N/A	CO5 / UN			Operating Systems: Internals and Design Principles by William Stallings
	Protection	0	N/A	CO5 / UN			Operating Systems: Internals and Design Principles by William Stallings
	File system structure	0	N/A	CO5 / UN			Operating Systems: Internals and Design Principles by William Stallings
	allocation methods	0	N/A	CO5 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere
	Directory implementation	0	N/A	CO5 / UN			Operating Systems: A Concept-Based Approach by D M Dhamdhere