Register Number:……..

KUMARAGURU
college of technology
character is life

B.E/B.TECH DEGREE EXAMINATIONS: APRIL /MAY 2024

(Regulation 2018)

Fourth Semester

INFORMATION TECHNOLOGY

U18ITT4001: Operating Systems

COURSE OUTCOMES

CO1: Experiment with various CPU scheduling algorithms with the understanding of operating system concepts.

CO2: Apply the methods for process coordination.

CO3: Apply the various memory management strategies.

CO4: Illustrate the various file management strategies.

CO5: Apply the disk scheduling policies.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	What are the objectives of operating system?	CO1	[K_1]
2.	What is scheduler?	CO1	[K_1]
3.	Under what circumstances user level threads are better than the kernel level threads?	CO2	[K_2]
4.	Infer the concept behind strong semaphore and spinlock?	CO2	[K_2]
5.	What is the basic method of Segmentation?	CO3	[K_2]
6.	Define a Pure Demand Paging?	CO3	[K_1]
7.	List the various file operations?	CO4	[K_1]
8.	What are the information associated with an open file?	CO4	[K_2]
9.	Define LINUX Virtualization.	CO5	[K_1]
10.	What is the basic approach of Page Replacement?	CO5	[K_2]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.		Explain different operating system structures with neat sketch.	16	CO1	[K_2]
12.		Explain the various types of system calls with examples.	16	CO1	[K_2]
13.	a)	Explain banker's algorithm for multiple resources to avoid deadlock.	8	CO2	[K_2]
	b)	Explain various methods for recovery from deadlock.	8	CO2	[K_2]
14.		Explain about given memory management techniques. (i) Partitioned allocation (ii) Paging and translation look-aside buffer.	16	CO3	[K_2]
15.		Compare the functionalities of FCFS, SSTF, C-SCAN and C-LOOK with examples.	16	CO4	[K_2]
16.		Explain in detail the memory management in LINUX system.	16	CO5	[K_2]

****