Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: SY/UG	School of Technology	Department: CSE
Course Code: CST210	Course Title: Operating Systems	Semester: IV
Day and Date:Wednesday, 23/06/2021	End Semester Examination	Time:2 Hrs. Max Marks:50

Instructions: 1) All Questions are compulsory.

		Marks	Bloom's Level	CO
Q.1	**Answer/Solve the following (any Two)**–			
a)	Justify time sharing operating system as logical extension of multiprogramming operating system.	8	L2	CO1
b)	Demonstrate process creation and process termination with respect to system calls.	8	L3	CO2
c)	Use "shortest remaining time first" scheduling to schedule given four processes. i) describe working of algorithm ii) compute each process waiting time & average waiting time	8	L3	CO3

Process	Arrival Time	CPU burst time
P1	0	7
P2	2	4
P3	4	1
P4	5	4

Q.2	**Answer/Solve the following (any two) –**			
a)	Describe use of semaphore (spinlock) to avoid busy waiting problem in process synchronization.	8	L2	CO3
b)	Describe remedies to avoid deadlock with classical example of dinning philosopher problem.	8	L2	CO3
c)	Explain Linux kernel & its usage.	8	L2	CO4
Q.3	**Answer/Solve the following (any two) –**			
a)	Describe use of following networking commands i)ifconfig & iwconfig ii) traceroute & tracepath iii) ping & dig	9	L2	CO4
b)	Demonstrate working of dynamic host configuration protocol to provide dynamic IP to client machine. (With suitable diagram & steps)	9	L3	CO5
c)	Describe working of file transfer protocol in Linux (with proper steps & commands)	9	L2	CO6

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