Department of Computer Science and Engineering MIDTERM EXAMINATION Summer 2022 CSE321: Operating Systems

Total Marks: 30 Time Allowed: 1 Hour 15 min

[Answer All Questions. Understanding the question is a part of the exam.]

CO1 CO2	1.	a) What is multiprogramming? What are the requirements for multiprogramming? b) Explain User mode and Kernel mode execution with example. c) Define system call? Explain how system call works using System Call Interface.					
CO2	2.	, ,	n we can increase the hardware resources as much as we want by money, do we implement the thread? Explain how the thread accelerates the power with an example.				
		b) A system has processes to execute of which 40% is parallel. If the number of cores is increased from 2 to 4, what will be the increase in performance? c) Find the output of the following code -					
	<pre>int main() { int id, i; printf("Start of main\n"); id = fork(); if (id > 0) { printf("Parent section\n"); } else if (id == 0) { printf("\n fork created\n"); } else { printf("\n fork creation failed!!!\n"); } printf("Printing the numbers from 1 to 10\n"); for (i = 1; i <= 10; i++) printf("\d" , i); printf("\n"); printf("\n");</pre>						
CO3	3.	a) Find which CPU scheduling Round Robin in terms of wait (q=4). Process Arrest P0 P1 P2 P3 P4 b) What is starvation and horest process P4	ting time and rival time 14 5 0 9	Burst time 9 10 13 8 11		8	
) virial is starvation and now can it be solved?					