Course: Operating System and System Programming Lab

Course Code: CSTE-3108

Time: 1:30 Hours **SET-A** **Marks: 40**

1.	Write a C program to demonstrate the producer-consumer process.	**15**
2.	Write a Priority Scheduling Program in C to determine the waiting time for each process and the average waiting time for given n processes and their burst times. Also, find the process execution sequence. Sample input:	**15**

Process	Burst time	Priority
P_1	2	2
P_2	1	1
P_3	8	4
P_4	4	2
P_5	5	2

3.	Write a shell script to classify a triangle as **Equilateral, Isosceles,** or **Scalene,** based on three given sides.	**10**

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Time: 1:30 Hours **SET-B** **Marks: 40**

1.	Write a C program to solve the producer-consumer problem using Peterson solutions.	**15**
2.	Write an SJF Scheduling Program in C to determine the waiting time for each process and the average waiting time for given n processes and their burst times. Also, find the process execution sequence. Sample input:	**15**

Process	Burst time
P_1	2
P_2	1
P_3	8
P_4	4
P_5	5

3.	Write a shell script to calculate the electricity bill based on the following rates: 0-100: 1.5 ৳, 101-400: 2.5 ৳, >=400: 4 ৳; Input total number of units and calculate the bills.	**10**