

Subject: Operating System (01CE1401)

Semester: 4th

Assignment for Average Students

S. No.	Questions															
1	Differentiate process and thread. Explain process state diagram															
2	What is Semaphore? Give the implementation of Bounded Buffer Producer Consumer Problem using Semaphore.															
3	<p>Assume that following jobs have arrived in the order 1,2,3 and 4:</p> <table><tr><th>Process</th><th>Arrival Time</th><th>Burst Time</th></tr><tr><td>1</td><td>0</td><td>5</td></tr><tr><td>2</td><td>0</td><td>10</td></tr><tr><td>3</td><td>0</td><td>2</td></tr><tr><td>4</td><td>0</td><td>81</td></tr></table> <p>All process arrived in order p1, p2, p3, p4 all time zero.</p> <p>(1) Draw gantt charts illustrating execution of these processes for SJF and round robin (quantum=1)</p> <p>(2) Calculate waiting time for each process for each scheduling algorithm</p> <p>(3) Calculate average waiting time for each scheduling algorithm</p>	Process	Arrival Time	Burst Time	1	0	5	2	0	10	3	0	2	4	0	81
Process	Arrival Time	Burst Time														
1	0	5														
2	0	10														
3	0	2														
4	0	81														
4	What are system calls? Explain various types of system calls with example for each															
5	Explain the best fit, first fit and worst fit algorithm															