Operating System #CT 3

1. What is the main concept of Belady’s Anomaly? Assuming a system that has no pages loaded in the memory and uses the FIFO page replacement algorithm. Consider the following reference string: 1, 2, 3, 4, 1, 2, 5, 1, 2, 3, 4, 5. If frame size is 4 and 5, then show that Belady’s anomaly is occurred here or not [8]

2. What is memory management? Why we use memory management? [4]

3. Describe swapping and fragmentation in the context of memory management. [4]

4. Suppose we have a reference page (7, 0, 1, 2, 0, 3, 0, 4, 2, 3, 0, 3, 2, 3) and number of frames is 4. Calculate page fault ratio for optimal page replacement algorithm. [4]