***Jaypee Institute of Information Technology, Noida***

***Operating System and System Programming lab [15B17CI472]***

***Assignment-8***

1. Write a Linux C program to implement following memory allocation scheme for the fixed partition technique.
   1. First Fit
   2. Worst Fit
   3. Best Fit
2. Write a C program to simulate paging technique of memory management.
3. Consider the following page reference string:

1, 2, 3, 4, 2, 1, 5, 6, 2, 1, 2, 3, 7, 6, 3, 2, 1, 2, 3, 6

Implement following page replacement algorithms, assuming three, four, five, six, or seven frames? Assume that all frames are initially empty.

* + 1. FIFO replacement
    2. Optimal replacement
    3. LRU replacement
    4. LFU replacement
    5. Second Chance replacement

1. Which of the above algorithm suffers from Belady’s anomaly, take an example of page reference and prove that the algorithm chosen suffers from Belady’s anomaly.