**Tutorial/Lab 10**

Q1 Implement the queue specification given below using a linked list.

struct node { float data;

struct node\* next; };

struct queue { struct node\* head, tail; };

int init(struct queue\* q); // set head and tail

int full(struct queue\* q); // return 1 if full

int empty(struct queue\* q); // return 1 if empty

struct node\* makenode(float data);

int enqueue(struct queue \*q, float item);

float dequeue(struct queue\*q);

Q2 Evaluate the asymptotic time complexity of each of the functions above in Q1 in terms of the Big-O notation.

Q3. Implement and test your code written for Q1 in the lab session.