**AYBU CENG 104 COMPUTER PROGRAMMING II**

**TERM ASSIGMENT (QUESTION 3)**

1. **In a forward linked list, why is it easier to insert a new node after a specific node rather than before the specific node? Is inserting before a specific node impossible?**

**ANSWER:**

* In linked list, inserting a new node after a specific node is easier than before the spesific node. Because, in inserting after a specific node,we know the next adress so, we create a temporary node and we assing a item to new node,then we can linked temporary node and main next node easily. Inserting before the specific node is more hard but not impossible, we use inserting before a specific node for beggining adress.

1. **We have been using stacks and queues in the form of array implementation. If we used a stack or a queue in the form of a linked list,**

**▪ What would be the conditions for a full stack, an empty stack, a full queue, and an empty queue?**

**▪ What would the functions pop, push, insert, remove do ?**

**ANSWER:**

* -Computer memory should be full for linked list is full such as full stack and full queue.

-For empty functions,start adress of linked list should NULL.

-for adding a new data such as insert and push, we linked node of new item and main next node.

-For removing a data such as pop,remove,we assing value to temporary nodes and we linked two

nodes, finally we delete temporary node.

1. **Although it has many advantages, what is the major disadvantage of a linked list in comparison to an array?**

**ANSWER:**

* Sometimes, Linked list may use more memory than array,because, the memory used to store the pointers. Also, if data is long which is recorded in linked list, the expected time to reach the desired data may be long.

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