



NUMBER : NAME :	SIGNATURE :	EVALUATION				
		1[....]	2[....]	3[....]	4[....]	5[.....]
Exam Execution Instructions of Faculty of Engineering should be obeyed. Questions are related to 1,4,12 of Program Learning Outcomes						

```
void insertOrdered(
    SinglyNode* newNode,
    SinglyNode* previous, SinglyNode* current)
{
    if ((current == NULL)
        || (newNode->score <= current->score))
    {
        newNode->next = current;
        previous->next = newNode;
    }
    else
        insertOrdered(newNode, current,
                      current->next);
}

int main()
{
    SinglyLinkedList list;
    SinglyNode* newNode;

    list.head = new SinglyNode;
    list.head->elem = "NoName";
    list.head->score = 0;
    list.head->next = NULL;

    newNode = new SinglyNode;
    newNode->elem = "...";
    newNode->score = ....;
    list.insertOrdered(newNode, list.head, list.head);

    newNode = new SinglyNode;
    newNode->elem = "...";
    newNode->score = ....;
    list.insertOrdered(newNode, list.head, list.head);

    newNode = new SinglyNode;
    newNode->elem = "...";
    newNode->score = ....;
    list.insertOrdered(newNode, list.head, list.head);

    newNode = new SinglyNode;
    newNode->elem = "...";
    newNode->score = ....;
    list.insertOrdered(newNode, list.head, list.head);
}
```

2. What is the number of recursive `insertOrdered()` calls of each choice in question 1? (25P)

A		B		C		D		E	
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1. Which score order inserts nodes with **min** recursive call? (25P) *You'll loose 5P from wrong answer.*

- (A) 590, 660, 720, 1105
- (B) 660, 590, 720, 1105
- (C) 590, 1105, 660, 720
- (D) 1105, 720, 590, 660
- (E) 1105, 720, 660, 590

```

int main()
{
    CircularlyLinkedList Queue;

    Queue.enqueue(5);
    Queue.enqueue(4);
    Queue.enqueue(3);
    Queue.enqueue(2);
    Queue.enqueue(1);

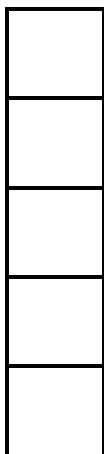
    Queue.dequeue();
    Queue.dequeue();
    Queue.dequeue();

    Queue.enqueue(3);
    Queue.enqueue(4);
    Queue.enqueue(5);

    Queue.C.print();
}

```

3. What is the output of the program above? (25P)



```

int main()
{
    LinkedStack LStack;

    LStack.push(5);
    LStack.push(4);
    LStack.push(3);
    LStack.push(2);
    LStack.push(1);

    cout << "Top = " << LStack.top() << endl;

    LStack.pop();
    LStack.pop();
    LStack.pop();

    LStack.push(1);
    LStack.push(2);
    LStack.push(3);

    cout << "Top = " << LStack.top() << endl;
}

```

4. What is the output of the program above? (25P)

