**DISCUSSION GROUP: NAME:**

**MATRICULATION NO:**

(Write down your particulars legibly using a **PEN**)

TOTAL MARKS

**SECTION A** [1 mark each]

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** | **B** | **2.** | **B** | **3.** | D | **4.** | **C** | **5.** | **D** |
|  |  |  |  |  |  |  |  |  |  |
| **6.** | **A** | **7.** | **E** | **8.** | A | **9.** | **A** | **10.** | **E** |

**SECTION B**

1. [2 marks]

|  |  |
| --- | --- |
| Line no. | Correct statement |
| **1**  **7**  **9**  **14** | **#include <stdio.h>**  **scanf("%d", &guess);**  **if (guess == secret)**  **return 0;** |

|  |  |
| --- | --- |
| **12.** | [3 marks]  **0 1 2 3 4** |

|  |  |
| --- | --- |
| **13.** | [3 marks]  **54000 11** |

|  |  |
| --- | --- |
| **14.** | [4 marks]  **20 1301** |

**SECTION C**

|  |  |
| --- | --- |
| **15.** | [2 marks]  **return a || (!b && c);** |

|  |  |
| --- | --- |
| **16.** | [6 marks]  **// pre-condition: n > 1, 1 ≤ k ≤ n,**  **// all integers are distinct**  **int find\_kth\_largest (int list[], int n, int k)**  **{**  **// there could be several ways**  **// to solve this problem.**  **int i, j, temp;**  **// the following idea is to move k**  **// bigger values to the**  **// first k slots of the list,**  **// similar to the white/black ball**  **// problem in week 3 discussion.**  **for (i=0; i<k; i++)**  **{**  **for (j=0; j<n-1-i; j++)**  **{**  **if (list[j]>list[j+1])**  **{**  **temp = list[j+1];**  **list[j+1] = list[j];**  **list[j] = temp;**  **}**  **}**  **}**  **return list[n-k];**  **}** |