**TABLE OF SPECIFICATIONS FOR EXAM QUESTIONS**

**University of Liberal Arts Bangladesh**

**Department: Computer Science and Engineering (CSE)**

**Mid-Term Examinations, Semester: Fall 2019**

**Program: B.Sc. in CSE**

**Course Code: CSE104 Course Title: Structured Programming LAB Credit Hr: 3**

**Time: 1Hour Total Marks: 20**

**Name & Designation of the Examiner: Satyaki Das |Lecturer**

**Learning Outcomes (CO):**

|  |
| --- |
| 1. Basicknowledge of structured programming terminologies to **develop** problem-solving skills, **produce** quality code and ability to **handle** possible errors during program execution |

***Levels in Bloom’s Cognitive Domain:***

***C1: Remember C2: Understand C3: Apply C4: Analyze C5: Evaluate C6: Create***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Question No.** | **Learning Outcomes (CO)** | **Level in Bloom’s Cognitive Domain along with Allocation of Marks** | | | | | |
|  |  | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** |
| 1 | 1 |  |  | 5 |  |  |  |
| 2 | 1 |  |  | 5 |  |  |  |
| 3 | 1 |  |  | 5 |  |  |  |
| 4 | 1 |  |  | 5 |  |  |  |
| **Total Allocation of Marks** | **20** |  |  | 20 |  |  |  |
|  |  |  |  |  |  |  |  |
| **Question No.** |  | **Learning Outcome** | | | | | |
|  |  | **CO1** |  |  |  |  |  |
| 1 |  | 5 |  |  |  |  |  |
| 2 |  | 5 |  |  |  |  |  |
| 3 |  | 5 |  |  |  |  |  |
| 4 |  | 5 |  |  |  |  |  |
| **Total Allocation of Marks** | **20** | 5 |  |  |  |  |  |

**Signature of the Examiner Date:**

**Department of Computer Science and Engineering**

**University of Liberal Arts Bangladesh**

**Final Examination (Fall 2019)**

**Course: Structured Programming LAB (CSE104)**

**Section: 1 --- Duration: 2 Hour**

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**PLEASE ANSWER ALL QUESTIONS. Total 20 Marks**

**QUESTION 1**

Write a program that reads a 2d integer array from a file named “input.txt”. Afterwards, it computes the minimax and maximin of the 2d array and then stores the results in a file named “result.txt”. **(10 Marks)**

* Minimax is the minimum of the maximum values in each row.
* Maximin is the maximum of the minimum values in each row.

**Sample Input:**

3 4

12 6 34 28

7 17 9 51

11 3 83 47

**Expected Output:**

Minimax: 34

Maximin: 7

**Explanation:**

The maximum values in each row are 34, 51 and 83. The minimum among these three values is 34. Therefore, the minimax is 34.

The minimum values in each row are 6, 7 and 3. The maximum among these three values is 7. Therefore, the maximin is 7.

**QUESTION 2**

Interview **(5 Marks)**

**QUESTION 3**

Write a C program that takes a string as input and determines whether the string is palindrome or not. **(10 Marks)**

* A string is said to be palindrome if reverse of the string is same as original string. For example, “abba” is palindrome, but “abbc” is not palindrome.

|  |  |
| --- | --- |
| **Sample Input** | **Expected Output** |
| madam | yes |
| abbc | no |

**QUESTION 4**

Interview **(5 Marks)**

**\*\*END OF QUESTIONS\*\***