CSARC

COMPUTER SCIENCE &
ROBOTICS CERTIFICATION

CERTIFICATION IN PYTHON

FOR LEARNERS

Sample Questions

(For reference only, score composition for various questions and sections may vary.)

Total Time: 2 hours

Total Score: 25

Answer ALL questions in pen.

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Section B: Short Programming Questions (Grade 1)

1. Write a program that asks the user to input 3 numbers representing length, breadth, height of a rectangular cuboid. [2]

$$Volume = length \times breadth \times height$$

2. Write a program that asks the user to input 5 numbers. Your program is supposed to display the lowest number, the highest number, and the average of the 5 numbers. [3]

3. Write a program that repeatedly asks the user to input numbers, and stores these numbers into a list in the order in which they were entered. When the user keys in number 999, print out the list of numbers and end the program. [3]

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Section B: Structured Programming Questions (Grade 2)

4. Students in a class may be represented using a nested list as follows. The nested list is in the format **[student_name, test_score]**.

```
Class1 = [['Alex', 85],
          ['Brenda', 79],
          ['Charles', 65],
          ['David', 75],
          ['Eunice', 92],
          ['Fred', 83]]
```

   a. Write a function **find_score** that takes in a student name as input parameter and returns the score of the student. [2]

```
def find_score(student_name):
     #complete the function
```

   b. Write a function **top_scorer** that returns the student name with the highest score. [2]

   c. Write a function **add_student** that takes in the class list, student name, and score as input parameters and returns a new class list with the new student and score added in. [2]

- End of Paper -

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