(CL1002) Programming Fundamentals Lab

Lab 11:

▪ Before doing the task, I recommend you all to go through the lab manual. It will make it easy for you all to understand this.

▪ Copied task will be awarded **zero** marks.

▪ Upload only a MS word and PDF file including all tasks source code and its output (screen shot).

▪ You have to copy the source code in your word file. Don't take the screen shot of source code.

▪ Use the following format for naming the word file Rollno\_name (21P-1234\_zain). ▪ All statements should be commented

1. Write a python function that takes dictionary as a parameter your function should print all the keys and values of the dictionary and return the sum all the items (Values) in a dictionary. Check if the value of sum is even your program should print “SUM IS EVEN” otherwise it should print “SUM IS ODD”.

2. Write a Python program calculate the product, multiplying all the numbers of a given tuple.

3. Write a Python function search\_element(l) that take nested list as a parameter. Your function should ask the user to input element to search if the search element is in nested list your function should return true

or false

L=[[1,2,3],[4,5,6],[7,8,9]]

4. Build a GPA calculator that inputs grades of N number of different subjects along with the credit hours from the user and displays the user’s GPA. The input grades and their corresponding grading points are given below.

**Note:** Use Dictionaries to store Grade and its corresponding points

Grade Points

**A** 4.0

**A-** 3.67

**B+** 3.33

**B** 3.0

**B-** 2.67

**C+** 2.33

**C** 2.0

**C-** 1.67

**D+** 1.33

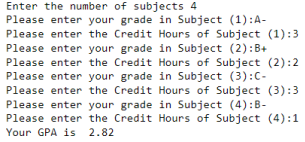
**D** 1.0

**F** 0

The formula is

GPA = (GP1 \* CH1 + GP2 \* CH2 +……+ GPN \* CHN)/ (CH1 + CH2 +…….+ CHN) Where GP1 is Points of Subject 1 and CH1 show credit hours of subject 1.

**Sample Output**

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