BITS PILANI, DUBAI CAMPUS I Semester 2018 – 2019 III Yr. C.S.

Course: CS F301 POPL

**Individual** **Assignment (5% weightage)**

Evaluation will be based on

Individual effort and Timely Demonstration

Date for Demonstration: **On or before** **29/11.2018 Thursday** in Lab. / Chamber (your Linux account in 172.16.22.5)

Note: Delayed Demonstration will result in reduction in marks.

**Copying / Allowing Copying not permissible and will not be considered**.

=============================================================================================

1. Write a PICO LISP program to **read a a numeric range from the keyboard or from a file** (starting number and ending number; assume only positive integers) and display the following:

* the sum of all odd numbers in the given range.
* the sum of all even numbers in the given range.

Test Scenario 1: Give the range as : 3 27

(i will check with different input, your code should be generic)

OUTPUT: 195

(you can display results in simple text mode)

Test Scenario 2: Give the range as: 3 28

(i will check with different input, your code should be generic)

OUTPUT: 208

(you can display results in simple text mode)

**P.T.O**

2. PROLOG DATABASE:

Write a SWI-PROLOG program to

a) Store the following information in a SWI PROLOG Database.

STUDENT SKILL

SKEY SNAME STU\_SK SKILL

--------- ----------- ---------------- ---------------

S001 AAA S001 MUSIC

S002 BBB S002 SWIMMING

S003 CCC S001 DANCE

S004 DDD S004 DANCE

S005 EEE S001 SWIMMING

S003 MUSIC

S005 MUSIC

LANGUAGE

STU\_LA LANGUAGE

----------- -------------------

S001 TAMIL

S002 KANNADA

S002 PUNJABI

S004 HINDI

S001 TELUGU

S003 URDU

S005 KONKANI

b) WRITE the **Query** and show the **OUTPUT** on screen for **each** of the following scenarios:

1. List all Student Names along with their SKEYs.
2. List all Skills possessed by each Student.
3. List all languages spoken by each student.
4. For a given Student Key, display his / her Skill(s) and Language(s) spoken, in a single query. consider S001 as test case.