

Ref. No. CUIET/CSE/ACAD/2024/532

November 21, 2024

NOTICE

Test Type: Final Lab Evaluation Test No: I Total Marks: 15 Duration: N/A
Course Code: 24CSE0101 Course Title: Problem Solving using Python Programming
Day: As per scheduled lab sessions Date: 25/11/2024 to 29/11/2024 Time: As per scheduled lab sessions
Mode: Offline Programme & Semester: BE-CSE-1st

Syllabus for Test:

Lab No.	Topic(s)
1-2	Anaconda Installation, Running Python Programs, Writing Python Scripts with Jupyter Notebook, and also make familiar with various platforms used for python programming, Implementation of basic concepts of python
3-8	Data types (text type, numeric, sequence, mapping, set), Python basic operators-arithmetic, comparison, assignment operators, logical operators, mix type conversion, integer to float and float to integer conversion.
9-14	Coding problems related to conditional statements (if, elif, nested if else) and match statement.
15-18	Coding problems related to for/while loops, For loop and range method, Break, continue and pass. Nested loops and pattern designs
19-22	Implementation related to Functions: User Defined and Built in functions (Python mathematical functions, random number functions), Passing Arguments (call by value/call by reference), Recursive Functions, Lambda Expressions.
23-24	Implementation of lists. Creating empty list, Initializing list, list indexing and slicing operations, input method, Concatenating multiple lists, generating range based lists. list based methods like append(), extend(), insert(), index(), count(), sort(), reverse(), pop() and nested lists.
25-26	Implementation of 2-D list with basic operations.
27-28	Python strings- accessing values in strings, updating strings, string special characters, string formatting operators, triple quotes, built in string methods. Capitalize(), count(), endswith, startswith, find, index, isalpha, isnum, isdigit, islower, isnumeric, isupper, lower, max, min, replace, splitwith, strip.
29	Implementation of Sets and relative methods.
30	Implementation of Tuples and relative methods.
31-32	Creating empty dictionaries, initializing dictionaries, Accessing dictionary items, merging, and deletion. Understanding dictionary specific methods, keys (), values (), items (), copy (), update (), pop () and dictionary comprehension, Python date and time functions
33-34	Python modules-import, from ... import statements, dir function, Generating Random values (random module)
35	File handling- Writing to a file, Reading from a file, Resetting the file current position, fseek
36-37	Exploring Object-Oriented Programming In Python.. Creating classes, objects.attributes (implementation with Examples)
38	Constructors and idea of inheritance, Superclass And SubClass (implementation with Examples)
39	Overriding methods, Object class, Isinstance function, Exploring Operator Overloading- Indexing And Slicing, Iterable Objects (implementation with Examples)

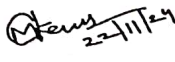
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40-41	Introduction to GUI Programming (Tkinter), Creating user defined modules, importing existing modules, Creating root windows and calling various dialogboxes on button click response.
42	Adding a Widget, Working with widgets(Displaying Text and Images With Label Widgets, Displaying Clickable Buttons With Button Widgets, Getting User Input With Entry Widgets, Getting Multiline User Input With Text Widgets, Assigning Widgets to Frames With Frame Widgets, Naming Conventions)
43	Controlling Layout With Geometry Managers(.pack(), .place(), .grid()), Using eventand event handlers(.bind())
44	Dealing with text-boxes, list-boxes, menus and dealing with basic events.
45	Building a simple App using Tkinter, Connecting Python With Oracle 11G- Performing insertion, Updation and deletion operation using python GUI.


Format of Assessment: Final Lab Evaluation

Components	Assesment	Marks
Conduction of Practicals	Rubric1	5
File Report	Rubric 2	5
Viva	Rubric 3	5
	Total	15

Remarks, if any: NA

Name & Signature of the Course Coordinator: **Dr. Mandeep Kaur/**  22/11/24

Name & Signature of the Academic Delivery Head: **Dr. Renu Popli/** 

Name & Signature of the Assistant Dean: **Dr. Deepak Thakur/**  27/11/24