School of Computing Science and Engineering

B.Tech CSE

ETE - Jun 2023

Time : 3 Hours **Marks : 100**

Sem IV - E2UC401C - Programming in Python

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1.	i. Apply a comprehensive explanation of pickle module in Python and list out advantages and limitations of using pickle to write binary files in Python. ii. Explain what is range() function and how it is used in lists.	K3 CO3	(5)
2.	Explain different rules about to define an identifier in python. If the age of Ram, Sam, and Khan are input through the keyboard, write a python program to determine the eldest and youngest of the three.	K1 CO1	(5)
3.	Write a Python program that given number is palindrome or not.	K2 CO2	(5)
4)	Analyze a Python class that has two methods: get_String and print_String , get_String accept a string from the user and print_String prints the string in upper case	K4 CO4	(10)

OR

	i. Construct a python program to change Dictionary keys into values and values into keys, and print the result. ii. Choose an integer sequence from the user. Write a program to print a **dictionary** from the given sequence. Consider the element in the sequence as a key, and the number of times the element occurs in the sequence as a value. Print the result	K4 CO4	(10)
5.	i. Show the output of the following Python code? d = {"john":40, "peter":45} d["john"] ii. Is tuple comparison possible? Explain how with example.	K2 CO2	(10)
6.	Assume the given instructions while writing the program	K4 CO1	(10)

- Use the **Module_Imp3** which contains functions that can be imported.
- Use from Module_Imp3 import *
- Take an integer as **input** from user and store it in the variable **side.**
- Call the function calculatearea(side,side)
- Call the function calculatediameter(side)
- Call the function pivalue()
- print shapes[1:2]

7.	Define SciPy, Scrapy, Scikit-learn, PyGame, PyTorch, PyBrain and Keras	K1 CO1	(10)
8)	Assume the given below instructions to implements the **method overriding** method:	K4 CO2	(15)

- Define class **Animal.**
- Use constructor to set the **name** with a default value = **"This Animal.**
- Define a method **eat** with a parameter **food** with a default value = **"Grass"**
- Inside the method **print (self.name, " eats", food)**
- Define a class **Mammal**, inherit from **Animal.**
- Inside the class, override **eat** method to **print(self.name, " does not eat. It only drinks")**
- Define class **WingedAnimal**, inherit from **Animal.**
- Override **eat** method to **print(self.name," eats anything and everything")**
- Define a class called **Bat**, inherit from **WingedAnimal**, **Mammal.**
- Define method **smell**, which prints **"This Animal Stinks".**
- Define a class called **FruitBat**, inherit from **Mammal**, **WingedAnimal**
- rabbit1 = Animal("Rabbit")
- print("Rabbit1 is an instance of Animal")
- rabbit1.eat() *# Animal's eat method without food parameter*
- rabbit1.eat("Peanuts") *# Animal's eat method with food parameter*
- print("Cow1 is an instance of Mammal")
- cow1 = Mammal("Cow")
- cow1.eat() *# Mammal's eat method*
- print("Vulture1 is an instance of WingedAnimal")
- vulture1 = WingedAnimal("Vulture")
- vulture1.eat() *# WingedAnimal's eat method*
- print("Bat1 is an instance of Bat")
- bat1 = Bat("Bat")
- bat1.eat() *# WingedAnimal's eat method*
- print("fbat is an instance of FruitBat")
- fbat = FruitBat("Fruitbat")
- fbat.eat() *# Mammal's eat method*

PTO

OR

	A permutation is simply a name for a reordering. So the permutations of the string ‘abc’ are ‘abc’, ‘acb’, ‘bac’, ‘bca’, ‘cab’, and ‘cba’. Note that a sequence is a permutation of itself (the trivial permutation). Take the permutation of the string in the list and write python program for a recursive function (get_permutations) that takes a string and returns a list of all its permutations.	K4	CO2	(15)
9.	Choose the capitalize() method works in python. Take str1 = “ hello how are you” & str2 = “42 is my lucky number”. Demonstrate the output for both strings	K3	CO1	(15)
10.	Apply a Python program that imports the abs() function using the built-ins module, displays the documentation of the abs() function and finds the absolute value of -155.	K3	CO3	(15)