KONERU LAKSHMAIAH EDUCATION FOUNDATION
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

B.Tech - Even Sem : Semester in Exam-I
Academic Year:2021-2022

20AD1202 - Object Oriented Programming System

Set No: 1

Time:		**Max.Marks: 50**					
S.NO	Answer All Questions	Choice	Options	Marks	CO	CO BTL	COI BTL
1.	Explain about the String methods 1.endswith(s1:str):bool 2.replace(old,new):str 3.format(items):str 4.isalnum():bool	choice Q-2		4.5Marks	CO1	3	3
2.	Write a Python program in which the user enters either 'S', 'T', or 'D'. If 'S' is entered, the program should display the word 'Shaddock'; if 'T' is entered, it displays 'Tamarind'; and if 'D' is entered, it displays 'Dragon fruit'.			4.5Marks	CO1	3	3
3.	Build a Number guessing game, in which the user selects a range. Let's say the User selected a range, i.e., from A to B, where A and B belong to Integer. Some random integer will be selected by the system and the program execution exits only after the user has guessed that integer	choice Q-4		8Marks	CO1	3	3
4.	Given the string, the task is to capitalize the first and last character of each word in a string. Input: hello world Output: HellO WorlD			8Marks	CO1	3	3
5.	Answer both 5A and 5B	choice Q-6		12.5Marks	CO1	3	3
5.A.	Given lst = [30, 1, 2, 1, 0], what is the list after applying each of the following statements? Assume that each line of code is independent. lst.append(40) lst.insert(1, 43) lst.extend([1, 43]) lst.remove(1) lst.pop(1) lst.pop() lst.sort() lst.reverse() random.shuffle(lst)			6.5Marks	CO1	3	3
5.B.	Write a python program to check if the given number is a Disarium Number 175 is a Disarium number as follows: pow(1,1)+ pow(7,2) + pow(5,3) = 1+ 49 + 125 = 175			6Marks	CO1	3	3
6.	ANSWER BOTH A AND B			12.5Marks	CO1	3	3
6.A.	You have given a nested list. Write a program to extend it by adding the sublist ["h", "i", "j"] in such a way that it will look like the following list. list1 = ["a", "b", ["c", ["d", "e", ["f", "g"], "k"], "l"], "m", "n"] # sub list to add sub_list = ["h", "i", "j"] Expected Output: ['a', 'b', ['c', ['d', 'e', ['f', 'g', 'h', 'i', 'j'], 'k'], 'l'], 'm', 'n']			6.5Marks	CO1	3	3
6.B.	Write a function that counts the occurrences of a specified non-overlapping string s2 in another string s1 using the following header: def count(s1, s2):			6Marks	CO1	3	3

	For example, count("system error, syntax error", "error") returns Write a test program that prompts the user to enter two strings and displays the number of occurrences of the second string in the first string						
7.	write a program that: - asks the user to input() names one at a time - adds each new name to a list called friends - after each new name is added prints the list in alphabetical order The program should loop until the user types “DONE”	choice Q-8		4.5Marks	CO2	3	3
8.	Explain about different list methods 1.reverse() 2.append() 3.extend() 4.membership operators			4.5Marks	CO2	3	3
9.	From given list gadgets = [“Mobile”, “Laptop”, 100, “Camera”, 310.28, “Speakers”, 27.00, “Television”, 1000, “Laptop Case”, “Camera Lens”] a) create separate lists of strings and numbers. b)Sort the strings list in ascending order c)Sort the strings list in descending order d)Sort the number list from lowest to highest e)Sort the number list from highest to lowest	choice Q-10		8Marks	CO2	3	3
10.	Create a dictionary ‘ODD’ of odd numbers between 1 and 10, where the key is the decimal number and the value is the corresponding number in words. Perform the following operations on this dictionary: (a) Display the keys (b) Display the values (c) Display the items (d) Find the length of the dictionary (e) Check if 7 is present or not (f) Check if 2 is present or not (g) Retrieve the value corresponding to the key 9 (h) Delete the item from the dictionary corresponding to the key 9			8Marks	CO2	3	3
11.	Give an appropriate list comprehension for each of the following. (A) Producing a list of consonants that appear in string variable w. (B) Producing a list of numbers between 1 and 100 that are divisible by 3. (C) Get only the numbers in a sentence like ‘In 1984 there were 13 instances of a protest with over 1000 people attending’ (D) Find all of the words in a string that are less than 4 letters	choice Q-12		12.5Marks	CO2	3	3
12.	Design a class named Account that contains: A private int data field named id for the account.A private float data field named balance for the account.A private float data field named annualInterestRate that stores the currentinterest rate.A constructor that creates an account with the specified id (default 0), initialbalance (default 100), and annual interest rate (default 0).The accessor and mutator methods for id, balance, and annualInterestRate.A method named getMonthlyInterestRate() that returns the monthlyinterest rate.A method named getMonthlyInterest() that returns the monthly interest.A method named withdraw that withdraws a specified amount from the account.A method			12.5Marks	CO2	3	3

	named deposit that deposits a specified amount to the account.Draw the class diagram for the class, and then implement the class. (Hint: The method getMonthlyInterest() is to return the monthly interest amount, not the interest rate. Use this formula to calculate the monthly interest: balance * monthlyInterestRate. monthlyInterestRate is annualInterestRate / 12. Note that annualInterestRate is a percent (like 4.5%). You need to divide it by 100.) Write a test program that creates an Account object with an account id of 1122, a balance of $20,000, and an annual interest rate of 4.5%. Use the withdraw method to withdraw $2,500, use the deposit method to deposit $3,000, and print the id, balance, monthly interest rate, and monthly interest.						

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