NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

THEORY EXAMINATION, MAY 2019

End Sem Question paper

Roll No: _____

Paper: Programming using Python (ITPE-22)
Branch: Information Technology
Course: B.Tech
Semester: Fourth (IV)
Time Duration: Three (3) Hours
Maximum Marks: 50
Total No. of Questions: Six (6)
Number of Questions to be Attempted: Five (5)

Note:

I. Marks allotted for each question are shown on the right-hand margin. Attempt all parts of a question at the same place.

II. The Candidates, before starting to write the solutions, should please check the Question paper for any discrepancy, and also ensure that they have been delivered the question paper of right course no. and right subject title.

III. Unless stated otherwise, the symbols and abbreviations have their usual meanings in context with the Subject. Assume suitably and state, additional data required, if any.

Q. No.	Questions	Marks
1.	a) Write a program to reverse a four digit number using % and // operator and shift the reversed number 2 bits towards the right.	3
	b) What is 'Position Argument', 'Keyword Arguments', and 'Parameter with default values' in a python function. Show with the help of example.	3
	c) Write a program to show method overloading and overwriting in python.	4
2.	a) How to read global variable from local scope and what happens when local and global variables have same name.	3
	b) Given two strings S1="fgabcabcdr" and S2="12ghtavabcabft". What will be the output of **a)** print(S1[: :-1]) **b)** print(S1[-1:0:-1]) **c)** print(S1[:-1]) **d)** print(3*S2) **e)** print(S2.isalpha()) **f)** print(S1.rfind("a")) **g)** print(S2.find("ab")) **h)** print(S1.replace("ab","bh",2))	4
	c) How to create and use an abstract class. Write program.	3

3.	a) Explain following methods (in relation to List) with the help of examples. append, clear, copy, extend, index, insert, remove, pop.	4
	b) How to append a new row in a given csv file. Write program.	3
	c) Explain the working of zip and unzip (zip(*)) method, using three tuples t1, t2, t3 as arguments.	3
4.	a) Create a calculator using tkinter. Calculator should be able to save previous ten calculations in a text file. Which can be accessed (one by one) by using back button of calculator.	7
	b) With example show working of any six methods of dictionary.	3
5.	a) Read all the images from a given folder, resize those images by size (200x200) and convert in grayscale mode. Save all grayscale images in a folder named "my_gray_images" and display these images on a canvas (use grid layout).	7
	b) How to perform exception handling in python. Explain all keywords and methods related to exception handling.	3
6.	a) You have a list of dictionaries and How would you sort the entries according to one or more of the dictionary values.	7
	b) Explain the use of following methods of turtle module. clearstamp(), pendown() , onclick(), setundobuffer(), end_fill()	3