

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
T3 EXAMINATION- December 2018

COURSE NAME: PYTHON PROG.
COURSE CODE: 18B1WCI731
COURSE CREDITS: 3

MAX. MARKS: 35

MAX. TIME: 2 Hr

Note: All questions are compulsory. Carrying of a mobile phone during examinations will be treated as a case of unfair means.

Question 1:

Write short notes with example on:

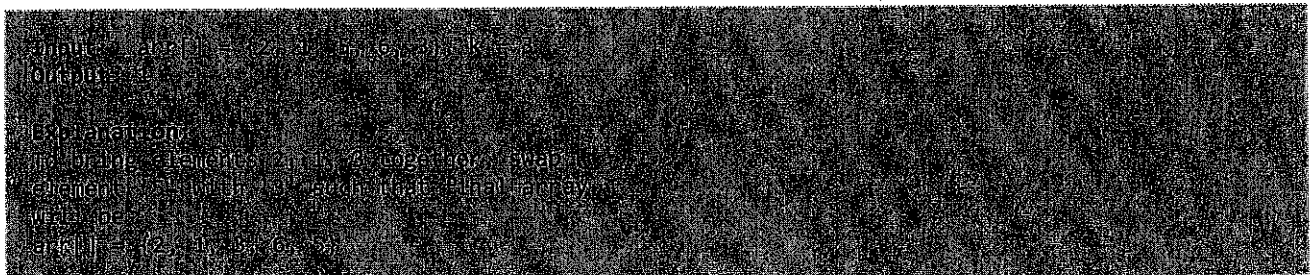
[1.5 x 10 Marks]

- Mention five benefits of using Python?
- What is *regular expression*, explain *re.match* function?
- What is *lambda* in Python?
- Whenever Python exits, why isn't all the memory de-allocated?
- Write any two methods along with syntax to generate a random numbers in Python?
- What are the built-in type does python provides?
- Is it possible to use negative indexes?
- What is the process of compilation and linking in python?
- How you can convert a number to a string?
- How are arguments passed by value or by reference?

Question 2:

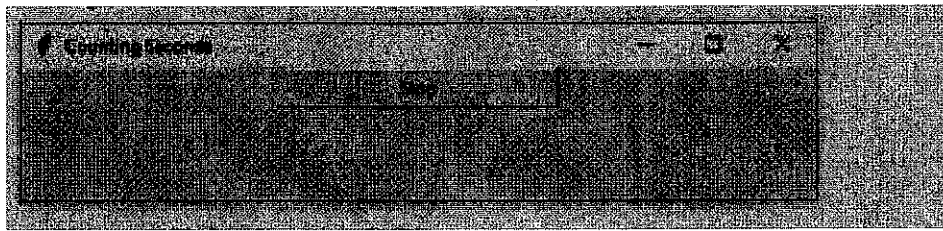
[5 Marks]

Given an array of n positive integers and a number k . Find the **minimum** number of swaps required to bring all the numbers less than or equal to k together.



Question 3: Write the python code (use tkinter) to implement the given GUI

[5 Marks]



Question 4:

[5 Marks]

Given a singly linked list and a key, count number of occurrences of given key in linked list. For example, if given linked list is 1->2->1->2->1->3->1 and given key is 1, then output should be 4. [Don't use recursion]

Question 5:

[5 Marks]

Suppose two lists X and Y are given, write a python program to:

- Merge / Join lists.
- Remove multiple elements from the list [e.g remove all the numbers from list, which are multiple of 3].
- Check if an item exists in list? | Search by Value or by Condition.