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## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST-3 EXAMINATION - December 2021

B. Tech III Semester

COURSE CODE: 18B11CI314

MAX. MARKS: 35

COURSE NAME: PYTHON PROGRAMMING ESSENTIALS

COURSE CREDITS: 3

MAX. TIME: 2 Hrs

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

Q1. Write a Python GUI program to create a Scrolled Text widgets using tkinter module? What are widgets in python and discuss both the widgets and their integration steps? (CO-6) [2+3=5 Marks]

Q2. Write a short note on File Handling in python? Python program to copy odd lines from "juit1.txt" to "juit2.txt". (CO-4) [2+3=5 Marks)

Q3. Write a program to show Instance Method, Class Method and Static Method in python. (CO-5) [5 Marks)

Q4. Why do you need regular expressions in Python? Consider a file "juit.txt". Write a Python program to read the file and look for lines of the form

X-DSPAM-Confidence: 0.8475

X-DSPAM-Probability: 0.458

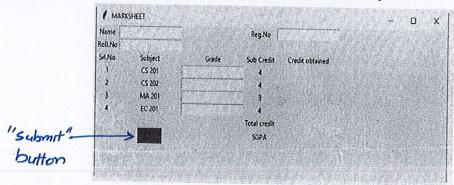
Extract the number from each of the lines using a regular expression. Compute the average of the numbers and print out the average. (CO-4) [2+3=5 Marks]

Q5.

(a) What do you mean by method overriding in python? Write python programs to override \_\_getitem\_\_(), \_\_set\_\_() methods and in operator. (CO-5) [3 Marks]

(b) Given the Coordinates (x, y) of a center of a Circle and its radius, write Python program to determine whether the Point lies inside the Circle, on the Circle or outside the Circle. (CO-3) [2 Marks]

Q6. What is GUI Programming in python? Discuss about TK interface in python? Write a python code to create the below form with all functionalities? (CO-6) [1+1+3=5 Marks]



Q7.

Write a short note on Python Errors and Built-in Exceptions? Write a code to demonstrate the (a) concept of creating a Python Custom Exception and Raise the same? (CO-4) [2 Marks]

Write Python code to create a function named alter\_rectangle() that takes an object of Rectangle (b) class inherited from Polygen class and two numbers named alter\_x and alter\_y. It should alter the location of the Rectangle by adding alter\_x to the x coordinate of corner and adding alter\_y to the y coordinate of corner. (CO-5) [3 Marks]