FYCS/SEM II/EXT/Advanced Python Programming

Time: 2½ hrs. **Marks:75**

Note:
1. All questions are compulsory with internal choice.
2. Draw neat diagrams wherever necessary.
3. Figures to the right indicate full marks.

Q.1 **Answer the following (any FOUR)** (20)

(a) What is regular expression? State and explain any five regular expression patterns.
(b) Explain various file opening modes in Python.
(c) Explain any five methods in OS Module.
(d) Differentiate between process and thread.
(e) Write a short note on zipping and unzipping Python files.
(f) Write a Python program to copy video file.

Q.2 **Answer the following (any FOUR)** (20)

(a) How Python handles exception? Explain with example.
(b) Explain Menu widget in Tkinter.
(c) Explain any five built-in exceptions in Python.
(d) What is mysql connector? How to access and connect with database using mysql connector? Explain with example.
(e) Explain different socket methods.
(f) Write a Python program to convert temperature from Fahrenheit to Celsius using Tkinter widgets. (c = (f - 32) * 5 / 9)

Q.3 **Answer the following (any FOUR)** (20)

(a) What is Inheritance? Explain types of Inheritance in Python with syntax of each type.
(b) What is method overriding? Explain with the help of example.
(c) Explain different access modifiers in Python.
(d) Write a note operator overloading in Python.
(e) Explain constructor and destructor with suitable programming example in Python.
(f) Write a Python program to create a class Circle constructed by radius and two methods which will compute the area and perimeter of the circle.

Q.4 **Answer the following (any FIVE)** (15)

(a) Explain deadlock in threading.
(b) Write Python code to read a string and:
   i. Split at white spaces.
   ii. Replace first two white spaces with '$' character.
   (Using re module)
(c) Differentiate between TCP and UDP.
(d) Explain place layout manager in Tkinter.
(e) Write a note on super()method.
(f) Differentiate between class variable and instance variable.

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