

# School of Computing Science and Engineering

B.Tech CSE  
ETE - Jun 2023

Time : 3 Hours

Marks : 50

## Sem II - MSCS1220 - OOPs Using Python

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

1. Outline the use of SciPy. K3 CO4 (2)
2. What is the output of print list [1:3] if list = [4, 5, 3, 2, 6, 7, 4, 5, 6, 11, 33, 21]? K1 CO2 (2)
3. Define Object Oriented Programming ? K2 CO1 (2)
4. What is dictionary and how it is created in Python? K4 CO5 (2)
5. How lists are updated in Python with an example? K4 CO3 (2)
6. Write a Python code to enter 3 numbers, find the greatest number and print the result. K4 CO2 (5)
7. Drive the code for 2 line in a graph with matplotlib. Also indicate the axis, legend, range of axis and title. K6 CO5 (6)
8. Create a class Employee with data members: name, department and salary. Also apply suitable methods for reading and printing employee information. K3 CO1 (5)
9. Discuss the use of different function Polymorphism in python with the help of example. K5 CO5 (8)
10. Implement a python code to find the root of the equation  $x + \sin(x)$ ? Drive the role of optimizer in python. K4 CO3 (8)
11. Develop a program for multiplying the two 2D matrix ? Also implement the transpose operation using NumPy. K5 CO4 (8)