Code No.: AI503PC | R20 | H.T.No. | | | 8 | R | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–I–Semester End Examinations (Regular) - January- 2024
INTRODUCTION TO PYTHON PROGRAMMING
(CSM)

[Time: 3 Hours]   [Max. Marks: 70]

Note: This question paper contains two parts A and B.
   Part A is compulsory which carries 20 marks. Answer all questions in Part A.
   Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks.

PART-A   (20 Marks)

1. a)	List the data types.	[2M]
b)	List special operators in python.	[2M]
c)	Define local variables in python.	[2M]
d)	What is the concept of random number generation?	[2M]
e)	Define tuples with syntax.	[2M]
f)	Define set with syntax.	[2M]
g)	Write any three features of object oriented programming.	[2M]
h)	Define polymorphism.	[2M]
i)	Write the key characteristics of terminal-based programs.	[2M]
j)	Define image processing.	[2M]

PART-B   (50 Marks)

2.a)	Explain how a program works in python.	[5M]
b)	Explain the terms 'integer' and 'string' in the context of python with an example.	[5M]

OR

3.	Explain the control statements with an example.	[10M]

4.	Discuss about the file handling in python.	[10M]

OR

5.a)	Explain passing arguments to function with an example.	[5M]
b)	Explain about global variables and global constants.	[5M]

6.	Explain about accessing characters and substrings in a string with an example.	[10M]

OR

7.	Define recursion. Explain problem solving using recursion with an example.	[10M]

8.	Discuss the difference between class methods and instance methods in python. Give an example of each and explain.	[10M]

OR

9.a)	Define the procedural and object-oriented programming with example.	[5M]
b)	Define inheritance. Explain any two types of inheritance with example.	[5M]

10.	Define tkinter module. Explain the tkinter methods with an example.	[10M]

OR

11.	Explain the RGB color system used in graphics and image processing.	[10M]

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