

Question Paper Code : 90245

M.C.A DEGREE EXAMINATIONS, APRIL/MAY 2022

First Semester

MC 4103 – PYTHON PROGRAMMING

(Regulations 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is python interpreter?
2. Differentiate break and continue statement in python.
3. What is tuple? What is the difference between list and tuple?
4. How do you define a package in python?
5. Which method is used to read the contents of a file which is already created?
6. List some few common Exception types.
7. What is the use of dir() function?
8. State the purpose of flask in python.
9. How to define a class in python.
10. Differentiate between an object and a class.

PART B — (5 × 13 = 65 marks)

11. (a) List the different operators available in Python. Elaborate the precedence and associativity of operators with an example.

Or

- (b) List the three types of conditional statements. Explain them with suitable examples.



(a) What is a software re-
the general etc.

12. (a) Explain the following with examples

- (i) Creating the list,
- (ii) Accessing values in the lists,
- (iii) Updating the list,
- (iv) Deleting the list elements.

Or

- (b) (i) Write a python program to check whether given string is palindrome or not (5)
- (ii) What is string slicing? Explain it with examples. Explain any four methods used in Python string. (8)

13. (a) Explain how exceptions are handled in Python with suitable examples.

Or

- (b) (i) Write a Python code to count the number of words, number of characters, number of lines in a text file. (8)
- (ii) State and explain various file modes used in Python. (5)

14. (a) (i) Explain about the import statement in Python. (3)

- (ii) Write a Python program to develop your own calculator package and use the same. (10)

Or

(b) Explain about python pandas framework pre-defined methods.

15. (a) Explain about python OOPs concept with suitable examples.

Or

(b) Explain about python inheritance and its type with examples.



PART C — (1 × 15 = 15 marks)

16. (a) Create a class employee with data members: name, department and salary and create suitable methods for reading and printing employee information.

Or

- (b) (i) Write a Python programming to display a bar chart of the popularity of programming Languages. (8)

Sample data:

Programming languages: Java, Python, PHP, Java Script, C#, C++

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

- (ii) Write a Python program to draw a scatter plot comparing two subject marks of Mathematics and Science. Use marks of 10 students. (7)

Test Data:

math_marks = [88, 92, 80, 89, 100, 80, 60, 100, 80, 34]

science_marks = [35, 79, 79, 48, 100, 88, 32, 45, 20, 30]

marks-range = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
