

(6 pages)

Reg. No. :

Code No. : 10530 E Sub. Code : CMCA 41

B.C.A. (CBCS) DEGREE EXAMINATION, APRIL 2024.

Fourth Semester

Computer Application — Core

PYTHON PROGRAMMING

(For those who joined in July 2021-2022 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. _____ is used to read and write big data files.
(a) Fiona (b) Jellyfish
(c) Cherrypy (d) Pandas
2. In python program _____ is used to represent an empty object.
(a) Null (b) Defaults
(c) None (d) All the above

3. Which module is useful to develop user friendly programs using command line arguments?
(a) argparse (b) argv
(c) args (d) All of these
4. _____ is a package that contains several classes, functions and variables to deal with scientific calculations.
(a) Array (b) List
(c) Numpy (d) Sequence
5. A _____ cannot run on its own.
(a) Suite (b) Class
(c) Functions (d) Modules
6. _____ represents creation of new lists from an iterable object that satisfies a given condition.
(a) List comprehension
(b) Tuples
(c) Cloning
(d) Intersection ()
7. Which method of dictionaries returns the value associated with key 'K' and returns 'V' if key is not found?
(a) d.pop(K,V) (b) d.setdefault(K,V)
(c) d.get(K,V) (d) All of these

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8. The _____ is useful to catch an exception that is raised in the try block.

- (a) Except
- (b) User-defined Exception
- (c) Built-in exception
- (d) All of these

9. Instance methods use _____ as first default parameters.

- (a) Class (b) Object
- (c) Self (d) Instance

10. The process of deriving subclasses from multiple base classes is called _____

- (a) Polymorphism
- (b) Single Inheritance
- (c) Multiple Inheritance
- (d) Method overloading

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PART B — (5 × 5 = 25 marks)

Answer ALL questions by choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Distinguish between the features of C and Python.

Or

(b) Describe various Data types in python with examples.

12. (a) Discuss about command line Arguments in python.

Or

(b) Write a python program to display prime number series.

13. (a) Explain various formats of slicing the string with examples.

Or

(b) Explain Recursive function and write a python program to calculate factorial values using recursion.

14. (a) Describe about various operations on Dictionary with example.

Or

(b) Define exception and its types. Summarize some important built-in exceptions in python.

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15. (a) Write about passing members of one class to another class in python with example.

Or

- (b) Explain briefly about method resolution order.

PART C — (5 × 8 = 40 marks)

Answer ALL questions by choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the important features of python.

Or

- (b) Give an account on Bitwise operators with suitable examples.

17. (a) Discuss about the different formats of output statements in python with example.

Or

- (b) Describe briefly about working with Multi-dimensional arrays.

18. (a) Illustrate various Anonymous Functions or Lambdas with examples.

Or

- (b) Briefly explain the following with examples :

- (i) Nested Lists.
- (ii) List comprehension.

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19. (a) Write short note on converting Lists and strings into dictionary.

Or

- (b) Describe about Random accessing of Binary files with examples.

20. (a) Classify the various types of methods with example.

Or

- (b) Write brief note on :

- (i) Operator Overloading
- (ii) Method Overloading.

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