

(6 pages)

Reg. No. :

Code No. : 5676

Sub. Code : ZMAE 23

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2022

Second Semester

Mathematics

Elective — PYTHON PROGRAMMING – THEORY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The process executing the individual statements in a given order
(a) control flow (b) state
(c) sequence (d) pseudocode
2. Statements are executed more than one time this type of execution is called
(a) looping (b) sequence
(c) control flow (d) state

3. _____ is the program construct that allows program to choose between different actions.
(a) Selection (b) Looping
(c) Iteration (d) Sequence
4. _____ is a collection of well defined and computable instructions to execute and get the proper output.
(a) Algorithm (b) Selection
(c) Iteration (d) Pseudocode
5. _____ is a combination of values, variables and operators.
(a) Expression (b) Operator
(c) Data types (d) Variables
6. _____ is not a keyword in python.
(a) Lambda (b) Try
(c) From (d) To
7. _____ variable can be only used inside its function.
(a) Global (b) Local
(c) Public (d) Void



8. _____ function always returns none.

- (a) Void (b) Fruitful
- (c) Local (d) Global

9. _____ is a sequence of values.

- (a) String (b) List
- (c) Tuple (d) None

10. _____ is the property of sequence whose items can't be changed.

- (a) Slice (b) Traverse
- (c) Immutable (d) Mutable

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) Discuss about functions.

Or

(b) Explain briefly about logic structure of pseudocode.

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12. (a) Explain in detail about strategies for developing algorithms.

Or

(b) Write an algorithm to find greatest of two numbers.

13. (a) Explain briefly about variables in python.

Or

(b) Explain briefly about order of operations in python.

14. (a) Explain briefly about parameters and arguments.

Or

(b) Explain briefly about function calls.

15. (a) Explain briefly about string methods.

Or

(b) Explain briefly about list slices.

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PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Discuss about building blocks of algorithms.

Or

- (b) Discuss in detail about problem solving techniques.

17. (a) Explain in detail about pseudocode for mathematical problems.

Or

- (b) Write a algorithm to calculate factorial numbers.

18. (a) Explain in detail about expression in python.

Or

- (b) Explain in detail about values and types in python.

19. (a) Explain in detail about wile and break statement.

Or

- (b) Explain briefly about fruitful function.

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20. (a) Discuss about strings immutability.

Or

- (b) Explain in detail about:

- (i) tuple assignment
- (ii) tuple as return values.

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