

END TERM EXAMINATION

THIRD SEMESTER (BCA) JANUARY-2024

Paper Code: BCAT-211

Subject: Basic of Python Programming

Time: 3 Hours

Maximum Marks :75

Note: Attempt five questions in all including Q.no.1 which is compulsory.
Select one question from each unit.

- Q 1 Write short notes on the following: (Any Five) (5x5=25)
- (a) Elaborate - "Python is interpreted as well as integrated programming language"?
 - (b) How unary operator different from binary operator? Give example of each.
 - (c) Explain the use of `_init_` method in python programming?
 - (d) Differentiate between list and tuple?
 - (e) Explain the use of pandas library with an example?
 - (f) Justify the significance of self keyword? Give an example?

UNIT-I

- Q2 (a) Explain while loop and for loop with an example. Elaborate difference between them. (4.5)
- (b) Explain membership operator, identity operator, escape sequence, slicing with an example? (8)
- Q3 (a) Perform following slicing operation on string "PYTHON PROGRAMMING":
`string[2:15:2]`,
`string[-3:-16:-2]`, `string[:13]`, `string[6:]`, `string[:-2]`, `string[3:14:3]` (6)
- (b) Write a program to print stars in right triangle pattern (value enter by user)? (6.5)

UNIT-II

- Q4 (a) Differentiates between mutable and immutable objects with examples? (4.5)
- (b) Explain tuple, list, sets, dictionary in python? Each with example. (8)
- Q5 (a) Explain list methods- append, extend, remove, index, pop, insert, sort? Give example of each? (6.5)
- (b) Explain dictionary methods- len, str, clear, copy, update, get? Give an example of each. (6)

UNIT-III

- Q6 Explain the concept of class, objects, functions, data member with help of program? Also Explain call by Value and call by reference? (12.5)
- Q7 Explain the following terms with examples: (12.5)
- (i) Scope and lifetime of a function.
 - (ii) Importing modules
 - (iii) Formal, Actual, Default, keyword arguments
 - (iv) Concept of modules

UNIT-IV

- Q8 (a) Elaborate the importance of pip command to install any library in python? (4.5)
- (b) By using NumPy library in program, perform the following operations:-
Creation of 1D array, Re-shaping of an Array, Array Slicing, Aggregate Operations. (8)
- Q9 (a) Explain file modes of file handling? Give example of each? (4.5)
- (b) Explain the use of NumPy, Pandas, Matplotlib in python programming? Give example of each? (8)

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