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.

Q1   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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