312301

December 2022
BCA (DS) III SEMESTER
Python Programming (BCA-DS-201)

Time : 3 Hours]   [Max. Marks : 75

Instructions :

1. It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.
2. Answer any four questions from Part-B in detail.
3. Different sub-parts of a question are to be attempted adjacent to each other.

PART-A

1. (a) Write the syntax of list in Python having five fruit names.   (1,5)

    (b) What is Numpy used for?   (1,5)

    (c) Explain' docstring in a class.   (1,5)

    (d) Name any *three* build in functions.   (1,5)

    (e) What does the following code do?   (1,5)

    fo = open("C:/Program Files/Python/xyz.bmp", "ab+")

(f) What are global variables? (1.5)

(g) What are variable length arguments? (1.5)

(h) What does [::-l] do? (1.5)

(i) What is the need of seek() function in Files in Python? (1.5)

(j) What is image processing? (1.5)

PART-B

2. (a) Discuss various features of Python. (10)

(b) Write a program to read a 3 digit number and print the sum of the digits. (5)

3. (a) Differentiate between Tuples & List. (5)

(b) Explain, using syntax, various data types supported in Python. (10)

a,b : a+b

4. Define class. Write a program using **constructor** to create a class called "**room**" having two data members **length** and **breadth** and one member function **cal_area**. Create its object and calculate area.

a and b ! (15)

5. (a) What is recursion? Write a recursive function to find factorial of a number. (10)

(b) Explain the advantages and disadvantages of lambda function. (5)

a = 2
b = 2

6. (a) What is a module? How do we create and use it? (5)

(b) Explain various operators in Python. (10)

7. (a) What is a file ? Write a program to read the contents of a binary file. (10)

(b) What is OpenCV? Explain (5)

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