Total No. of printed pages = 4

ECE 181602

Roll No. of candidate

|4|6|23

2023

B.Tech. 6th Semester End-Term Examination

ADVANCE PROGRAMMING

New Regulation (w.e.f 2017-18) & New Syllabus (w.e.f. 2018-19)

Full Marks – 70   Time – Three hours

The figures in the margin indicate full marks for the questions.

Programming Language to be use: Python

Answer question No. 1 and any *four* from the rest.

1. Answer the following (MCQ/ Fill in the blanks) :   (10 × 1 = 10)

    (i)   Which of the following is correct with respect to OOP concept in Python?

          (a)   Object are real world entitle while classes are not real.

          (b)   Classes are real world entitle while object are not real.

          (c)   Both object and classes are real world entitles.

          (d)   Both object and classes are not real.

    (ii) How many objects and reference variable are there for the given Python code?

          class A:

                  print ("Inside class")

          A()

          A()

          obj = A()

          (a)   2 and 1

          (b)   3 and 3

          (c)   3 and 1

          (d)   3 and 2

[Turn over

(iii) Which of the following is False with respect Python code?

class Student:

    def_____init_____(self,id,age):

        self.id = id

        self.age = age

std = Student(1,20)

(a) "std" is the reference variable for object student(1,20)

(b) id and age are called the parameters.

(c) Every class must have a constructor.

(d) None of the above

(iv) What will be the output of below Python code?

class Student:

    def___init__(self, name,id):

        self.name = name

        self.id=id

        print(self.id)

std = Student("Simon",1)

std.id = 2

print(std.id)

(a) 1 1   (b) 1 2

(c) 2 1   (d) 2 2

(v) A single sequential flow of control within a program is ————

(a) Process

(b) Task

(c) Thread

(d) Structure

(vi) Which of the following is used placed after if condition?

(a) ;

(b) :

(c) ,

(d) .

(vii) Object and class attributes are accessed using ——————— notation in Python

    (a) Dot(.)

    (b) self

    (c) object

    (d) function

(viii) Which of the following is correct?

    class A:

        def__init__(self);

            self.count=5

            self.count=count+1

    a=A()

    print(a.count)

    (a) 5   (b) 6

    (c) 0   (d) ERROR

(ix) In Python, what is method inside class.

    (a) Attribute   (b) Object

    (c) Argument   (d) Function

(x) Which keyword is used to come out of loop only after iteration?

    (a) Break   (b) Continue

    (c) Return   (d) None of the mentioned

                                                        ($4 \times 15 = 60$)

2. (a) Define class and object. What are the limitations of inheritance   (4+4=8)

    (b) Differentiate between parameterized and non-parameterized constructor. Give an example for both.   (5+2=7)

3. (a) Explain thread, Synchronizing threads, Multi-threaded Priority Queue, multi-processing module with an example.   (15)

4. (a) Describe different types of function in Python? Give an example for each of the type with complete python code.   (7)

    (b) What is meant by module in python? List four within modules in python along with their operation.   (5)

    (c) What is the use of dir() function?   (3)

5. (a) Differentiate between Abstraction and Encapsulation in python? Explain with an example (7)

   (b) What is the difference between tuple and lists in python? (3)

   (c) Explain dictionary in python with an example. (5)

6. Discuss the difference between the function overloading and overriding with an example. How recursive function is implemented in python? Give an example.

   (10+5=15)

7. (a) Write merits and demerits of Socket in networking. How to import Socket module in python? (4+4=8)

   (b) Write a short note on match function and search function. How matching is different from searching. (5+2=7)

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