Enrollment No......................................

Faculty of Engineering
End Sem (Even) Examination May-2022
CA5EL54 Programming in Python

Programme: MCA   Branch/Specialisation: Computer Application

Duration: 3 Hrs.   **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1 i. What is used to define a block of code in Python?   **1**
(a) Parenthesis   (b) Indentation
(c) Curly braces   (d) None of these

ii. _____ is a repetition operator.   **1**
(a) +   (b) #   (c) *   (d) &

iii. What will be the output of the following python code?   **1**
days = ["Sunday", "Monday", "Tuesday", "Wednesday"];
print(days[-3:-1])
(a) ["Tuesday", "Wednesday"]
(b) ["Monday", "Tuesday"]
(c) ["Sunday", "Monday"]
(d) ["Sunday", "Wednesday"]

iv. What datatype(s) is/are stored in *args, when passed into a function?   **1**
(a) List   (b) Tuple   (c) Dictionary (d) All of these

v. _____ function will make the child class inherit all the methods   **1** and properties from its parent.
(a) Self   (b) _init()   (c) Super   (d) Pass

vi. The _____ parameter is a reference to the current instance of the   **1** class, and is used to access variables that belong to the class.
(a) Self   (b) _init()   (c) Super   (d) Default

vii. Which exception is raised when a calculation exceeds maximum limit   **1** for a numeric type?
(a) StandardError   (b) ArithmeticError
(c) OverflowError   (d) FloatingpointError

P.T.O.

viii. Which statement will move file pointer 10 bytes backward from current position? **1**
(a) f.seek(-10, 0) (b) f.seek(-10, 1)
(c) f.seek(10, 0) (d) f.seek(0, 0)

ix. The python code given below can work with _____parameters. **1**

```
def disp(x):
    def disp1(*args, **kwargs):
        print("")
        return x(*args, **kwargs)
    return disp1()
```

(a) 0 (b) 1 (c) 3 (d) Any number of

x. Which of the following characters matches a pattern only at the beginning of the string? **1**
(a) \Z (b) \B (c) \D (d) \A

Q.2 i. Illustrate input statement or method with suitable example. **2**
ii. What is indentation? Explain with suitable example. **3**
iii. Describe comparison operators with suitable example. **5**
OR iv. Demonstrate 'if' and 'elif' statement with suitable example. **5**

Q.3 i. Write difference between List and Tuple. **2**
ii. How is a list created? Explain with its syntax and example. **3**
iii. Compare actual and formal arguments with example. **5**
OR iv. Write a recursive function to find factorial of a number which is entered by the user. **5**

Q.4 i. What is class? Discuss built in class attributes. **2**
ii. What is polymorphism? Describe with suitable example. **3**
iii. Explain Multiple inheritance with an example. **5**
OR iv. Differentiate overloading and overriding with suitable example. **5**

Q.5 Attempt any two:
i. Illustrate try-except-else with example. **5**
ii. Explain with an example to copy the contents of one file to another. Use exception handling to print proper messages. **5**

iii. List out the types of Modules. Also explain any two types in detail. **5**

Q.6 Attempt any two:
i. What is Context? What is the role of 'with' statement in context? Explain how to define context manager function. **5**
ii. What do you mean by Iterators and Generators? Explain it. **5**
iii. What is the role of regular expression in python? Write a Python program to match a string that contains only upper and lowercase letters, numbers, and underscores using regular expression. **5**

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Marking Scheme CA5EL54 Programming in Python

Q.1   i.   What is used to define a block of code in Python?   **1**
      (b) Indentation   1 Mark

   ii.   _____ is a repetition operator.   **1**
      (c) *   1 Mark

   iii.   What will be the output of the following python code?   **1**
      days = ["Sunday", "Monday", "Tuesday", "Wednesday"];
      print(days[-3:-1])
      (b) ["Monday", "Tuesday"]   1 Mark

   iv.   What datatype(s) is/are stored in *args, when passed into a function?   **1**
      (b) Tuple   1 Mark

   v.   _____ function will make the child class inherit all the methods and properties from its parent.   **1**
      (c) Super   1 Mark

   vi.   The _____ parameter is a reference to the current instance of the class, and is used to access variables that belong to the class.   **1**
      (a) Self   1 Mark

   vii.   Which exception is raised when a calculation exceeds maximum limit for a numeric type?   **1**
      (c) OverflowError   1 Mark

   viii.   Which statement will move file pointer 10 bytes backward from current position?   **1**
      (b) f.seek(-10, 1)   1 Mark

   ix.   The python code given below can work with _____parameters.   **1**
      def disp(x):
          def disp1(*args, **kwargs):
             print("")
             return x(*args, **kwargs)
          return disp1()
      (d) Any number of   1 Mark

   x.   Which of the following characters matches a pattern only at the beginning of the string?   **1**
      (d) \A   1 Mark

Q.2   i.   Discuss input statement   1 Mark   **2**
      Example.   1 Mark

   ii.   Definition of indentation   1 Mark   **3**
      Example.   2 Marks

   iii.   List of all operators   1 Mark   **5**
      Explanation with example.   4 Marks

OR   iv.   About 'if' and 'elif'   2 Marks   **5**
      Example.   3 Marks

Q.3   i.   Difference between List and Tuple   1 Mark each   **2**
      (1 Mark*2)

   ii.   List created   1 Mark   **3**
      Explanation with example.   2 Marks

   iii.   About actual and formal arguments   2 Marks   **5**
      Example.   3 Marks

OR   iv.   Input, output calling   3 Marks   **5**
      Recursion   2 Marks

Q.4   i.   About class   1 Mark   **2**
      Brief about attributes.   1 Mark

   ii.   Polymorphism   **3**
      Definition   1 Mark
      Example   2 Marks

   iii.   About Multiple inheritance   2 Marks   **5**
      Example.   3 Marks

OR   iv.   Differentiate   2 Marks   **5**
      Example.   3 Marks

Q.5   Attempt any two:
   i.   Description   2 Marks   **5**
      Example   3 Marks

   ii.   Copy   3 Marks   **5**
      Exception handling use   2 Marks

   iii.   Types of module   **5**
      Listing   1 Mark
      2 type of module   2 Marks each
      (2 marks*2)

Q.6		Attempt any two:			
	i.	Context	1 Mark	**5**	
		Role of 'with'	2 Marks		
		Define context manager	2 Marks		
	ii.	Iterators	2.5 Marks	**5**	
		Generators	2.5 Marks		
	iii.	Role	2 Marks	**5**	
		Program logic	3 Marks		

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