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

Faculty of Science
End Sem (Odd) Examination Dec-2019
CA3EL06 Python Programming

Programme: BCA   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.   Which of the following is invalid variable declaration?   **1**
      (a) my_string_1   (b) 1st_string   (c) foo   (d) _a

    ii.   Is Python case sensitive when dealing with identifiers?   **1**
      (a) Yes   (b) No
      (c) Machine dependent   (d) None of these

    iii.   What is the output when following statement is executed?   **1**
        >>>"abcd"[2:]
      (a) a   (b) ab   (c) cd   (d) dc

    iv.   Which of the following commands will create a list?   **1**
      (a) list1 = list()   (b) list1 = [].
      (c) list1 = list([1, 2, 3])   (d) All of these

    v.   What is the output of the following?   **1**
```
x = ['ab', 'cd']
for i in x:
    i.upper()
print(x)
```
      (a) ['ab', 'cd']   (b) ['AB', 'CD']
      (c) [None, None]   (d) None of these

    vi.   What will be the output of the following python code?   **1**
```
i=1
while True:
    if i % 007 == 0:
        break
    print(i)
    i+=1
```

(a) 1 2 3 4 5 6   (b) 1 2 3 4 5 6 7
(c) Error   (d) None of these

vii. Which of the following is the use of function in python? **1**
(a) Functions are reusable pieces of programs
(b) Functions don't provide better modularity for your application
(c) You can't also create your own functions
(d) All of these

viii. What is the length of sys.argv? **1**
(a) Number of arguments   (b) Number of arguments +1
(c) Number of arguments -1   (d) None of these

ix. When will the else part of try-except-else be executed? **1**
(a) Always
(b) When an exception occurs
(c) When no exception occurs
(d) When an exception occurs in to except block

x. To open a file c:\scores.txt for writing, we use **1**
(a) outfile = open("c:\scores.txt", "w")
(b) outfile = open("c:\\scores.txt", "w")
(c) outfile = open(file = "c:\scores.txt", "w")
(d) outfile = open(file = "c:\\scores.txt", "w")

Q.2 i. What are the key features of Python? **2**
ii. What is the purpose of PYTHONSTARTUP, PYTHONCASEOK, PYTHONHOME, PYTHONSTARTUP environment variables? **3**
iii. What are the supported data types in Python? Explain with example. **5**
OR iv. What is Python really? How you can make comparisons to other technologies? **5**

Q.3 i. What is the difference between list and tuples? **2**
ii. Write a program to Concatenate Two Dictionaries into One. **8**
OR iii. Write a program to Check if a String is a Palindrome or Not. **8**

Q.4 i. Explain String slices and indexing. **3**
ii. Explain while and for loops with syntax and example. **7**
OR iii. Explain break, pass and continue statements with an example. **7**

Q.5 i. Write a Python program to detect the number of local variables declared in a function. **4**
ii. Write a Python program to access a function inside a function. **6**
OR iii. Explain the concept of modules in python with suitable examples. **6**

Q.6 Attempt any two:
i. Write a program (using functions!) that asks the user for a long string containing multiple words. Print back to the user the same string, except with the words in backwards order. **5**
ii. Explain how to handle exceptions in Python (try except). **5**
iii. Write a python program to show user defined exceptions **5**

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Q.1 i. Which of the following is invalid variable declaration? **1**
(b) 1st_string

ii. Is Python case sensitive when dealing with identifiers? **1**
(a) Yes

iii. What is the output when following statement is executed? **1**
>>>"abcd"[2:]
(c) cd

iv. Which of the following commands will create a list? **1**
(d) All of these

v. What is the output of the following? **1**
x = ['ab', 'cd']
(a) ['ab', 'cd']

vi. What will be the output of the following python code? **1**
(c) Error

vii. Which of the following is the use of function in python? **1**
(a) Functions are reusable pieces of programs

viii. What is the length of sys.argv? **1**
(b) Number of arguments +1

ix. When will the else part of try-except-else be executed? **1**
(c) When no exception occurs

x. To open a file c:\scores.txt for writing, we use **1**
(b) outfile = open("c:\\scores.txt", "w")

Q.2 i. Key features of Python **2**
1 mark for each point   (1 mark * 2)

ii. Purpose of PYTHONSTARTUP, PYTHONCASEOK, PYTHONHOME, PYTHONSTARTUP environment variables **3**

iii. Supported data types in Python **5**
1 mark for each point   (1 mark *5)

OR iv. Python really   3 marks **5**
Comparisons to other technologies   2 marks

Q.3 i. Difference between list and tuples **2**
At least two difference 1 mark for each   (1 mark * 2)

ii. Program to Concatenate Two Dictionaries into One. **8**

Input   2 marks
Logic   6 marks
Output   2 marks

OR iii. Program to Check if a String is a Palindrome or Not. **8**
Input   2 marks
Logic   6 marks
Output   2 marks

Q.4 i. String slices   1.5 marks **3**
Indexing   1.5 marks

ii. While loops with syntax and example   3.5 marks **7**
For loops with syntax and example   3.5 marks

OR iii. Break statements   3 marks **7**
Pass statements   2 marks
Continue statements   2 marks

Q.5 i. Python program to detect the number of local variables declared in a function. **4**

ii. Python program to access a function inside a function. **6**
Define and function   2 marks
Logic   4 marks

OR iii. Concept of modules in python **6**
Definition   3 marks
Import module (three types)   3 marks

Q.6 Attempt any two:
i. Program (using functions!) **5**
Input   2 marks
Logic   3 marks

ii. Exceptions handling in Python (try except). **5**
Definition   2 marks
Program/syntax   3 marks

iii. Python program to show user defined exceptions **5**
Definition   2 marks
Program logic   3 marks

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