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

Faculty of Science
End Sem (Odd) Examination Dec-2018
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.   What is the output of this expression, 3*1**3?   **1**
(a) 27   (b) 9   (c) 3   (d) 1

ii.   Which of the following is invalid?   **1**
(a) _a = 1   (b) __a = 1   (c) __str__=1   (d) None of these

iii.   Suppose list1 is [4, 2, 2, 4, 5, 2, 1, 0], Which of the following is correct syntax for slicing operation?   **1**
(a) print(list1[0])   (b) print(list1[:2])
(c) print(list1[:-2])   (d) All of these

iv.   What is the output of the following?   **1**
print('abcdefcdghcd'.split('cd', 2))
(a) ['ab', 'ef', 'ghcd']   (b) ['ab', 'efcdghcd']
(c) ['abcdef', 'ghcd']   (d) None of these

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

vi. What is the output of the following? **1**
```
i = 1
while True:
   if i%2 == 0:
      break
   print(i)
   i += 2
```
(a) 1 (b) 1 2
(c) 1 2 3 4 5 6 … (d) 1 3 5 7 9 11 …

vii. What is a variable defined outside a function referred to as? **1**
(a) A static variable (b) A global variable
(c) A local variable (d) An automatic variable

viii. To include the use of functions which are present in the random **1**
library, we must use the option:
(a) import random (b) random.h
(c) import.random (d) random.random

ix. To open a file c:\scores.txt for reading, we use **1**
(a) infile = open("c:\scores.txt", "r")
(b) infile = open("c:\\scores.txt", "r")
(c) infile = open(file = "c:\scores.txt", "r")
(d) infile = open(file = "c:\\scores.txt", "r")

x. To read the next line of the file from a file object infile, we use **1**
(a) infile.read(2) (b) infile.read()
(c) infile.readline() (d) infile.readlines()

Q.2 i. What is Python? Where it is used? **2**
ii. What is the difference between Python 3 and 2? Describe at least **3**
three differences.
iii. Describe bitwise and logical operators of python with example. **5**
OR iv. What is variable? How do you define a variable in Python? **5**
Describe the property of variable.

Q.3 i. How to create set and dictionary in python explain with an **2**
example.

ii. Write a program that accepts a comma separated sequence of **8**
words as input and prints the words in a comma-separated
sequence after sorting them alphabetically.
OR iii. Write in brief about dictionary in python. Write a program to **8**
concatenate two dictionaries into one dictionary.

Q.4 i. Describe for-else loop of python with example. **3**
ii. Write a program to print all the prime numbers from 1 to 100 **7**
using loop and range function.
OR iii. Write a program to take data of user such as name, age, salary and **7**
print the data in alphabetical order on name.

Q.5 i. Describe functions? How to define function? Write about different **4**
types of arguments in a function.
ii. What is module? How to import module? Describe random **6**
module with an example.
OR iii. Write a password generator in Python. Be creative with how you **6**
generate passwords - strong passwords have a mix of lowercase
letters, uppercase letters, numbers, and symbols. The passwords
should be random, generating a new password every time the user
asks for a new password.

Q.6 Attempt any two:
i. How to handle an exception using try except block? Explain with **5**
the help of a program.
ii. What is file handling? How do you open a file and write the **5**
content to another file in python?
iii. What is custom exception? Define a custom exception class which **5**
takes a string message as attribute.

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Marking Scheme

CA3EL06 Python Programming

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Q.1

i.   What is the output of this expression, 3*1**3? **1**
(c) 3

ii.   Which of the following is invalid? **1**
(d) None of these

iii.   Suppose list1 is [4, 2, 2, 4, 5, 2, 1, 0], Which of the following is   **1**
correct syntax for slicing operation?
(d) All of these

iv.   What is the output of the following? **1**
print('abcdefcdghcd'.split('cd', 2))
(a) ['ab', 'ef', 'ghcd']

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

vi.   What is the output of the following? **1**
i = 1
while True:
    if i%2 == 0:
        break
    print(i)
    i += 2
(d) 1 3 5 7 9 11 …

vii.   What is a variable defined outside a function referred to as? **1**
(b) A global variable

viii.   To include the use of functions which are present in the random   **1**
library, we must use the option:
(a) import random

ix.   To open a file c:\scores.txt for reading, we use **1**
(c) infile = open(file = "c:\scores.txt", "r")

x.   To read the next line of the file from a file object infile, we use **1**
(c) infile.readline()

Q.2

i.   Python definition   1 mark   **2**
     Its Uses   1 mark

ii.   Difference b/w Python 3 and 2   **3**
     At least six differences.0.5 mark each   (0.5 mark *6)

iii.   Bitwise and logical operators of python with example.   **5**
     Logical operators   2 marks
     Example   0.5 mark
     Bitwise operator   2 marks
     Example   0.5 mark

OR   iv.   Variable definition   2 marks   **5**
     Syntax   1 mark
     Property   2 marks

Q.3

i.   Set creation   1 mark   **2**
     Dictionary creation   1 mark

ii.   Proper input   2 marks   **8**
     Logic   4 marks
     Proper output   2 marks

OR   iii.   Description of dictionary   3 marks   **8**
     Proper input   1 mark
     Logic   2 marks
     Proper output   2 marks

Q.4

i.   Loop   2 marks   **3**
     Example   1 mark

ii.   Proper input   2 marks   **7**
     Logic   3 marks
     Proper output   2 marks

OR   iii.   Proper input   2 marks   **7**
     Logic   3 marks
     Proper output   2 marks

Q.5

i.   Definition   1 mark   **4**
     Declaration   1 mark
     Types   2 marks

ii.   Definition   2 marks   **6**
     Import syntax   2 marks
     Example   2 marks

OR	iii.	Proper input	2 marks	**6**
		Logic	2 marks	
		Proper output	2 marks	

Q.6		Attempt any two:		
	i.	Description	2 marks	**5**
		Example	3 marks	
	ii.	Description	2 marks	**5**
		Example	3 marks	
	iii.	Description	2 marks	**5**
		Example	3 marks	

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