

SHRI MATA VAISHNO DEVI UNIVERSITY, KATRA

School of Computer Science & Engineering

B. Tech (CSE/ECE/ME/ CE/EE) Minor-I Examination (Even) 2018-19

Entry No: **18 B C S 0 6 4** Total number of pages:[02]

Date: 05/02/2019 Total number of questions: [04]

B.Tech. || Semester II

Programming using Python

Subject Code: CSL 1028

Time allowed: 01:30 Hrs

Max Marks: 20

Important Instructions:

- Attempt all questions
- Assume any missing data
- The answer should be precise and point to point.

Section A

Q. 1. Find out the number of iterations in the given loop:

[1X1=1]

```
n=7  
for i in range (0, n-1):
```

Q. 2. What is the output of the following code snippets: [1X5=5]

a)

```
str1='123'  
print( str1+1 )
```

b)

```
x='AbcD'  
for i in x:  
    print( i.lower() )
```

c)

```
str2='PYTHON'  
print( str2[ : 3 ] )  
print( str2[ -2 : ] )
```

d)

```
for i in [1,2,3,4,5][ : :-2 ]:  
    print(i)
```

e)

```
m = [ [x, x + 1, x + 2] for x in range(0, 4)]  
print(m)
```

Section B

Q.3 Write the short note on following: [1X4=4]

- I. Highlight the difference between formal and natural language.
- II. What should be the objectives of any programming language?
- III. List the various errors in python programming.
- IV. Why is python programming language becoming more popular than other languages?

Q. 4. Attempt any four [2.5X4=10]

- I. Write a python program to read an n-digit number and replace all even digit with the letter 'E' and odd digit with letter 'O'.
- II. Write a python program to find out the largest string among three strings given by user.
- III. Write a python program to print sum of positive even number, positive odd number, negative even number, and negative odd number in a list separately.
- IV. Write a python program to reverse a string.
- V. Write a python program to print the pattern

```
$           $  
$           $  
$   $  
$   $  
$           $  
$           $
```

Course Outcomes

1. To learn the basic syntax, loops, conditions, operators, data structures in Python language
2. To learn how to code in a function oriented way

SHRI MATA VAISHNO DEVI UNIVERSITY, KATRA
Exam: Minor-II, Session: December-2018 to April-2019

Entry No:

1	8	B	C	S	O	6	4
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 Total number of pages: [02]
Total number of questions: [03]

B.Tech. CSE || Semester II
Programming using Python
Subject Code: CSL 1028

Time allowed: 01:30 Hrs

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Important Instructions:

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- The answer should be precise and point to point.

Section A		
Q.1	I. y = 10 z = lambda x: x * y print(z(8))	[7X1=7]
	II. values = [[3, 8, 5, 4], [3, 66, 7, 5]] v = values[0][0] for lst in values: for element in lst: if (v > element): v=element print(v)	
	III. s = "KAKRYAL" s = s[:3] + "C" + s[4:] print(s)	
	IV. from random import randint t = ["Rock", "Paper", "Scissors"] computer = t[randint(0,2)] print(computer)	
	V. a=(1,2) b=(3,4) c=a+b print(c)	
	VI. a=(28,4,21,-50) del(a[21]) print(a)	
	VII. MatA=[[[1,3],[2,5],[3,7],[3,8]], [[8,7],[9,8],[1,4],[3,2]], [[4,6],[5,1],[6,6],[3,5]]] print(MatA[2][0][1]*MatA[1][0][1])	

Section B		
Q.2	<p>Write the short note on following:</p> <ol style="list-style-type: none">Object-oriented Vs Structured programming with the example.Define List and Tuple.List the various modules of python.	[3X1=3]
Section C		
Q.3	<p>Attempt any four</p> <ol style="list-style-type: none">Write a python program to find the transpose of a matrix. (User should input number of rows, number of columns, and elements into the matrix. Program should display entered matrix and its transpose.)Write a python program to find the sum of numbers up to 'n' using recursion. (User should input a number 'n'. Program should display sum of numbers from 1 to 'n').Write a python program to swap the keys and values in a dictionary. (User should input size of the dictionary, keys and values. Program should display old dictionary-before swapping and new dictionary-after swapping.).Write a python program to subtract the leading digit from a number and repeat the process till the number becomes zero and display all the numbers. (User should input a number 'n' and subtract the leading digit from it till it reaches 0. Program should display every number obtained after subtraction. Eg: n=56. Output=56,51,46,42,38,35,...,0)Write a python program to print the hexadecimal sum of two hexadecimal numbers (maximum length = 2) without using any inbuilt functions. (If a user enters two hexadecimal numbers 1F and F1 then the result should be 11Q)	[4X2.5=10]
Course Outcomes		
	<ol style="list-style-type: none">To learn the basic syntax, loops, conditions, operators, data structures in Python language.To learn how to code in a function oriented way.Know the basic syntax and Data Structures in Python.	

Python quiz
Date:- 29-04-2019

max marks: 15

Btech Civil

Name:

Entry No:

Q1. Define a class named MOVIE in python with the following description:

Private members

HALL_NO integer

MOVIE_NAME Array of characters (String)

WEEK integer (Total number of weeks the same movie is shown)

WEEK_COLLECTION Float

TOTAL_COLLECTION Float

Public Members • Function Read_Data() to read an object

- Function Display() to display the details of an object
- Function Update() to update the total collection and Weekly collection once in a week changes. Total collection will be incremented by Weekly collection and Weekly collection is made Zero.

Q2. Write a program to assign passengers seats in an airplane. Assume a small airplane with seat numbering as follows:

1 X B C D
2 A X C D
3 A B C D
4 A B X D
5 A B C D
6 A B C D
7 A B C D

The program should display the seat pattern, with an 'X' marking the seats already assigned. After displaying the seats available, the program prompts the seat desired, the user types in a seat, and then the display of available seats is updated. This continues until all seats are filled or until the user signals that the program should end. If the user types in a seat that is already assigned, the program should say that the seat is occupied and ask for another choice.

Functions:

1. **getData()**
2. **display()**
3. **check()**
4. **update()**

Q3. Write a program in python to calculate the number of integers, number of alphabets in a given string:

Le12as34t56int7rea8st@e0d

Python quiz
Date:- 29-04-2019

max marks: 15 Btech Civil

Name: —

Entry No:

7. What is the output of the following snippet of code?

```
a = {}  
a[1] = 1  
a['1'] = 2  
a[i]=a[1]+i  
count = 0  
for i in a:  
    count += a[i]  
print(count)
```

- a) 1
- b) 2
- c) 4
- d) Error, the keys can't be a mixture of letters and numbers

8. What will be the output?

```
def f(i, values = []):  
    values.append(i)  
    return values
```

f(1)

f(2)

v = f(3)

print(v)

- a) [1][2][3]
- b) [1][1, 2][1, 2, 3]
- c) [1, 2, 3]
- d) 1 2 3

9. What is the output of the following code?

```
a=[10,23,56,[78]]
```

```
b=list(a)
```

```
a[3][0]=95
```

```
a[1]=34
```

```
print(b)
```

- a) [10,34,56,[95]]
- b) [10,23,56,[78]]
- c) [10,23,56,[95]]
- d) [10,34,56,[78]]

10. What is the output of the following piece of code?

```
class A():
```

```
    def disp(self):  
        print("A disp()")
```

```
class B(A):
```

```
    pass
```

```
obj = B()
```

```
obj.disp()
```

- a) Invalid syntax for inheritance
- b) Error because when object is created, argument must be passed
- c) Nothing is printed
- d) A disp()

SHRI MATA VAISHNO DEVI UNIVERSITY, KATRA**School of Computer Science & Engineering****B.Tech (CSE) Major Examination (2nd Semester 2018-2019)**Entry No:

1	8	B	C	S	0	6	4
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Date: 09-05-2019

Total Number of Pages: [03]

Total Number of Questions: [10]

Course Title: Programming using Python**Subject Code: CSL 1028****Time Allowed: 3.0 Hours****Max Marks: [50]**Instructions / NOTE

- i. Attempt All Questions.
- ii. Support your answer with neat indents using scale and pencil, wherever appropriate.
- iii. Assume any missing data to suit the case / derivation / answer.
- iv. Following calculators or lower models are allowed:

Casio: FX-83{ES or GTplus} or FX-85{ES or GTplus}, **Sharp:** Writeview EL-W531**Hewlett Packard:** HP10S or HP300S, **Texas:** TI-30IIS**Section – A: What will happen if you run the following codes on a Python 3 IDLE:**

Q1.	<pre>(a) >>> s = '833838' >>> print (s[:2]) (b) >>> x = [0, 1, [2]] >>> x[2][0] = 3 >>> print (x) (c) >>> print ("Hello {0!r} and {0!s}".format('foo', 'bin')) (d) >>> b = {} >>> b['x'] = 2 >>> b[(1, 2)] = 3 >>> print (b) (e) >>> count = 1 >>> def doThis(): >>> global count >>> for i in (1, 2, 3): >>> count += 1 >>> doThis() >>> print (count) (f) >>> nameList = ['Harsh', 'Pratik', 'Bob', 'Dhruv'] >>> print (nameList[-2][-3]) (g) >>> def addToList(listcontainer): >>> listcontainer += [10] >>> myListContainer = [10, 20, 30, 40] >>> addToList(myListContainer) >>> print (len(myListContainer)) (h) >>> print ("Hello World"[::-1]) (i) >>> print (~~~~~~5) (j) >>> print ('{:;}'.format('1112223334'))</pre>	[01×10]=10	CO1, CO2
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Section – B: Attempt any five questions:				
Q2.	(a) Demonstrate the use of break and continue keywords in looping structures. (b) Discuss the various bitwise operators in Python with example. (c) How append () and extend () are different with reference to list in Python? What does the keyword 'self' in Python mean? Explain with example. (d) What is Tkinter? Explain briefly different widgets provided by this module. (e) Briefly explain the technique of function/method overriding with the help of an example. (f) What is inheritance? Explain with the help of a program. Where we can use inheritance concept?	[02×5]=10		CO1, CO2, CO3, CO4, CO5
Section – C : Attempt any six questions:				
Q3.	Create a student class and initialize it with name and roll_no as member variables and following member functions: • Display(): to display all information of the student • setAge(int): to assign age to student • setMarks(float): to assign marks of 5 subjects to student	[05]		CO1, CO2, CO3, CO5
Q4.	Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5,between 2000 and 3200 (both included).The numbers obtained should be printed in a comma-separated sequence on a single line.	[05]		CO1, CO2
Q5.	Write a program which takes 2 digits, X,Y as input and generates a 2-dimensional array. The element value in the i-th row and j-th column of the array should be $i \cdot j$. Note: i=0,1,..., X-1 and j=0,1,...,-Y-1. In case of input data being supplied to the question,it should be assumed to be a console input in a comma-separated form. Example: Suppose the following inputs are given to the program:3,5 Then, the output of the program should be: [[0, 0, 0, 0], [0, 1, 2, 3, 4], [0, 2, 4, 6, 8]].	[05]		CO1, CO2, CO5
Q6.	Write a python program to accept a sentence from the user and display the longest word of that sentence along with its length.	[05]		CO1, CO5
Q7.	Define a class BankAccount in python with following description: Member variables: • name : type string • accNo: type int • accType: type string • panNo :type string • balance :type float	[05]		CO2, CO3, CO5

	<p>Member functions:</p> <ul style="list-style-type: none"> • <code>create_Acc()</code> : input all fields from the user and create a new account • <code>deposit_Amount()</code> : input from the user to deposit amount and update the balance field accordingly • <code>withdraw_Amount()</code>: input from the user the amount to be withdrawn and deduct the balance. • <code>display_Info()</code>: print the information related to the account holder. 		
Q8.	<p>Write a Python GUI program to create two push buttons using Tkinter. Background colour of a frame should be changed when different buttons are clicked.</p>	[05]	CO4
Q9.	<p>Given a positive integer number n, you have to write a program that generates a dictionary d which contains (i, i^*i^*i) such that i is the key and i^*i^*i is its value, where i is from 1 to n (both included). Then you have to just print this dictionary d. Example: Input: 4 will give output as <code>{1: 1, 2: 8, 3: 27, 4: 64}</code></p>	[05]	CO1, CO5
Q10	<p>We will keep track of when our friends birthdays are, and be able to find that information based on their name. Create a dictionary of names and birthdays. When you run your program it should ask the user to enter a name, and return the birthday of that person back to them.</p>	[05]	CO1, CO2

Course Outcomes:

CO1	To learn the basic syntax, loops, conditions, operators, data structures in Python language.
CO2	To learn how to code in a function oriented way.
CO3	To learn how to code in an object oriented way.
CO4	To learn GUI creation in Python.
CO5	To learn how to design solutions to the programming problems and code in Python using the first four learning objectives.

Question Mapping:

	Questions Mapping	Total Marks	Total Number of Students
CO1	1,2,3,4,5,6,9,10	50	80
CO2	1,2,3,4,5,7,10	45	80
CO3	2,3,7,9	25	80
CO4	2,8	15	80
CO5	2,3,5,6,7,9	35	80