

<b>Name:</b>	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, May 2019**

**Course: B.Tech CSE Bigdata**  
**Program: Functional Thinking**  
**Course Code: CSBD1003**

**Semester: II**  
**Time 03 hrs.**  
**Max. Marks: 100**

**Instructions: Attempt all questions**

**SECTION A**

S. No.	Question	Marks	CO
Q 1	How do we implement if-else condition? Explain with an example.	4	CO1
Q 2	What is dictionary in python? Give an example.	4	CO2
Q 3	Define list and tuple. How list is different from tuple?	4	CO2
Q 4	Write a program to print the area of a circle and triangle.	4	CO1
Q 5	Write a program to calculate factorial of a number using lambda function.	4	CO1

**SECTION B**

Q 6	Illustrate the use of range () in python along with an example. Write a shot note on IDLE	5+5	CO3
Q 7	Explain for loop with an example. Demonstrate the use of break and continue keywords in looping structures using a snippet code.	4+6	CO2
Q 8	List and explain any six built in string manipulation function supported by python with proper code. Write a code to print the last six character of the string <i>“Functional thinking is an innovative subject”</i>	6+4	CO3
Q 9	Using datetime module write a program that gives the current date and print the day of the week. What is polymorphic function? Explain with example.	4+2+4	CO2
OR	A Python program to generate squares from 1 to 100 using yield and therefore generator function.	10	CO4

**SECTION-C**

Q 10	Discussed the difference between normal function and generator function, with proper code snippet. What is generator object? Explain the application of generator function. Write a python script to print Fibonacci series using generator function	7+3+3 +7	CO4
OR	Explain the term “iterator” with python code. What are applications of iterators? Create an iterator that returns numbers, starting with 1, and each sequence will increase by one (returning 1,2,3,4,5 etc.)	5+3+1 2	CO4
Q 11	What is the need of Regular expression package? Explain the difference between match () and search () with a code snippet. Write a python script using regular expression module for the following string Str = “Amit got 90 marks Vimal got 57 marks Raju got 78 marks” Split the string	4+6+1 0	CO3

	and create a associative list containing [Amit : 90, Vimal : 57, Raju : 78]		
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**SECTION A**

S. No.		Marks	CO
Q 1	Write a python program to exchange the value of two variables.	4	CO1
Q 2	When to use yield instead of return in Python? Explain with example.	4	CO4
Q 3	Define list and dictionary. How list is different from tuple?	4	CO2
Q 4	What is a numeric literal? Give examples.	4	CO1
Q 5	Write a program to display odd numbers from 1 to 50 using lambda function.	4	CO1

**SECTION B**

Q 6	Define user defined function. Write the syntax to define user defined function. Give example for the same. Write a shot note on assert statement.	5+5	CO3
Q 7	A Python program to generate squares from 1 to 100 using yield and therefore generator function.	10	CO4
OR	Create an iterator that returns numbers, starting with 1, and each sequence will increase by one (returning 1,2,3,4,5 etc.):	10	CO4
Q 8	Create a file with say test.txt. Initially file is empty. Write a text (“Functional Thinking”) in the file and then read the file. What happen if we perform read operation consecutive two times in an open file and why? What are the different types of file opening mode available? Differentiate between write and append mode.	10	CO3
Q 9	Using datetime module write a program that gives the current date and print the day of the week. What is polymorphic function? Explain with example.	4+2+4	CO2

**SECTION-C**

Q 10	What is need of generator function and generator object? Explain the application of generator function. Write a python script to print Fibonacci series using generator function	10+3+7	CO4
OR	Write a simple Python program that creates iterator type that iterates from 10 to given limit. For example, if limit is 15, then it prints 10 11 12 13 14 15. In addition, if limit is 5, then it prints nothing.	20	CO4
Q 11	What is the need of lambda function? Write a program to calculate factorial of a number using lambda function. What is map function? Using map ( ) write a script	4+6+10	CO3

	to convert temperature from Centigrade to Fahrenheit		
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