R20

SET-I

		7	R						

CMR TECHNICAL CAMPUS

UGC AUTONOMOUS

B.Tech - III Semester, Regular End Examinations, Feb/Mar-2022

Programming with Python [20CS305PC]

(Common to CSM & CSD)

Time: 3 Hours **Max. Marks: 70**

Answer Any Five Questions
All Questions Carry Equal Marks

5 X14 = 70 Marks

1. a. Explain different arithmetic operators supported by Python. Discuss about their precedence and associativity. [7M]

   b. Develop a Python Program to print GCD of a given two numbers. Take input from user. [7M]

2. a. Develop a Python Program to print multiplication table of a given number. Take input from user. [7M]

   b. Explain different bitwise operators supported by Python. Discuss about their precedence and associativity. [7M]

3. a. Write a short note on numpy. [7M]

   b. List and explain the basic operations on strings with suitable example. [7M]

4. a. Write a Python program for matrix multiplication. [7M]

   b. Explain the process of sorting strings. [7M]

5. a. Define recursive function with a suitable example. [7M]

   b. Explain the process of passing dictionaries to functions. [7M]

6. a. Explain the importance of functions in Python programming. [7M]

   b. Explain the operations on tuples with suitable examples. [7M]

7. a. Demonstrate command line arguments with a suitable example. [7M]

   b. Write a short note on exception handling mechanism in Python. [7M]

8. a. Define class, object and abstract class with an example each. [7M]

   b. write a short note on symbols and special characters used in regular expression. [7M]

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CMR TECHNICAL CAMPUS

UGC AUTONOMOUS

B.Tech.III SemesterRegular/SupplyEnd Examinations, Feb-2023

Programming with Python

Common to CSM, CSD, CSG, AIML

Time: 3 Hours **Max. Marks: 70**

Note

i. This Question paper contains Part- A and Part- B.
ii. All the Questions in Part A are to be answered compulsorily.
iii. All Questions from Part B are to be answered with internal choice among them.

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PART-A

10 X 02 = 20 Marks

			Marks	CO	BL
1.	a	Mention the features of python?	2M	CO1	L2
	b	What is meant by selection, iteration and sequence control structures?	2M	CO1	L1
	c	Define array with example?	2M	CO2	L1
	d	Explain the operations on strings?	2M	CO2	L2
	e	Define recursive function with example?	2M	CO3	L1
	f	Define Dictionary ?	2M	CO3	L1
	g	Define Exception with example?	2M	CO4	L1
	h	Briefly describe about Built in functions?	2M	CO4	L4
	i	Define polymorphism with example?	2M	CO5	L1
	j	Define Regular Expression?	2M	CO5	L1

PART- B

5 X 10 = 50 Marks

			Marks	CO	BL
2.	a	Explain the execution behavior of 'for' loop statement supported by Python programming with an example program.	5M	CO1	L2
	b	Write a python program to calculate the total amount to be paid by user after reducing the 10% discount on purchases more than 1000 rupees.	5M	CO1	L3
		OR			
3	a	Explain operators in python with examples?	5M	CO1	L2
	b	Write a Python program that prints all the numbers from 0 to 100 except the multiples of 4 and 6.	5M	CO1	L3
4	a	Write a program to read string and display 'Total number of uppercase and lowercase letters'.	5M	CO2	L3

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	b	Write a program to read a string containing binary digits and convert it into its equivalent decimal integer?	5M	CO2	L3
		OR			
5	a	Define arrays in python? With its types?	5M	CO2	L1
	b	Differences between reshape() and flatten() with examples	5M	CO2	L2
6	a	A four digit integer is entered through the keyboard. Write a function to calculate the sum of the four-digit number both with out recursion and using recursion	5M	CO3	L3
	b	A positive integer is entered through the keyboard. Write a function factors(num) to obtain the factors of the given numbers	5M	CO3	L3
		OR			
7	a	How are nested dictionaries created with example?	5M	CO3	L3
	b	How can a polynomial be represented using dictionaries?	5M	CO3	L3
8	a	Write a Python program to handle Division By Zero exception.	5M	CO4	L3
	b	Explain the purpose of 'else' and 'finally' blocks in exception handling with a Python program	5M	CO4	L2
		OR			
9	a	What are the different modes of opening a file in Python? Explain the Python 'open()' built-in function	5M	CO4	L2
	b	Discuss various Python Built-in importing modules with examples?	5M	CO4	L6
10	a	Explain oops paradigm?	5M	CO5	L2
	b	Differences between abstract class and interfaces?	5M	CO5	L3
		OR			
11	a	Explain different types of multithreading?	5M	CO5	L2
	b	Write a Python program to check that a string contains only a certain set of characters (in this case a-z, A-Z and 0-9)	5M	CO5	L3

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CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
B.Tech - III Semester, Supply Examinations, July-2022
Programming with Python [20CS305PC]
(Common to CSM & CSD)

Time: 3 Hours **Max. Marks: 70**

Answer Any Five Questions
All Questions Carry Equal Marks

5 X 14 = 70 Marks

1. a. List and explain various data types supported by Python. [7M]
   b. List and explain various conditional statements supported by Python. [7M]

2. a. Write a short note on features and applications of Python. [7M]
   b. Demonstrate break and continue statements with a suitable program. [7M]

3. a. Explain reshape ( ) and flatten ( ) methods with an example each. [7M]
   b. Write a short note on searching strings. [7M]

4. a. Write a Python program for matrix addition. [7M]
   b. Explain the process of working with characters in Python. [7M]

5. a. Explain various parameter passing methods used in Python. [7M]
   b. Explain the process of passing tuples to functions. [7M]

6. a. Write a Python program to find factorial of number using recursion. [7M]
   b. Explain the process Sorting the Elements of a Dictionary using Lambdas. [7M]

7. a. Write a short note on Modules & Files. [7M]
   b. Explain try and catch keywords with a suitable example. [7M]

8. a. List and explain various forms of inheritance supported by Python. [7M]
   b. Write the importance of Multithreaded programming. [7M]

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CMR TECHNICAL CAMPUS

UGC AUTONOMOUS

B.Tech.III SemesterRegular/SupplyEnd Examinations, Feb-2023

Programming with Python

Common to CSM, CSD, CSG, AIML

Time: 3 Hours **Max. Marks: 70**

Note

i. This Question paper contains Part- A and Part- B.
ii. All the Questions in Part A are to be answered compulsorily.
iii. All Questions from Part B are to be answered with internal choice among them.

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PART-A

10 X 02 = 20 Marks

			Marks	CO	BL
1.	a	Mention the features of python?	2M	CO1	L2
	b	What is meant by selection, iteration and sequence control structures?	2M	CO1	L1
	c	Define array with example?	2M	CO2	L1
	d	Explain the operations on strings?	2M	CO2	L2
	e	Define recursive function with example?	2M	CO3	L1
	f	Define Dictionary ?	2M	CO3	L1
	g	Define Exception with example?	2M	CO4	L1
	h	Briefly describe about Built in functions?	2M	CO4	L4
	i	Define polymorphism with example?	2M	CO5	L1
	j	Define Regular Expression?	2M	CO5	L1

PART- B

5 X 10 = 50 Marks

			Marks	CO	BL
2.	a	Explain the execution behavior of 'for' loop statement supported by Python programming with an example program.	5M	CO1	L2
	b	Write a python program to calculate the total amount to be paid by user after reducing the 10% discount on purchases more than 1000 rupees.	5M	CO1	L3
		OR			
3	a	Explain operators in python with examples?	5M	CO1	L2
	b	Write a Python program that prints all the numbers from 0 to 100 except the multiples of 4 and 6.	5M	CO1	L3
4	a	Write a program to read string and display 'Total number of uppercase and lowercase letters'.	5M	CO2	L3

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	b	Write a program to read a string containing binary digits and convert it into its equivalent decimal integer?	5M	CO2	L3
		OR			
5	a	Define arrays in python? With its types?	5M	CO2	L1
	b	Differences between reshape() and flatten() with examples	5M	CO2	L2
6	a	A four digit integer is entered through the keyboard. Write a function to calculate the sum of the four-digit number both with out recursion and using recursion	5M	CO3	L3
	b	A positive integer is entered through the keyboard. Write a function factors(num) to obtain the factors of the given numbers	5M	CO3	L3
		OR			
7	a	How are nested dictionaries created with example?	5M	CO3	L3
	b	How can a polynomial be represented using dictionaries?	5M	CO3	L3
8	a	Write a Python program to handle Division By Zero exception.	5M	CO4	L3
	b	Explain the purpose of 'else' and 'finally' blocks in exception handling with a Python program	5M	CO4	L2
		OR			
9	a	What are the different modes of opening a file in Python? Explain the Python 'open()' built-in function	5M	CO4	L2
	b	Discuss various Python Built-in importing modules with examples?	5M	CO4	L6
10	a	Explain oops paradigm?	5M	CO5	L2
	b	Differences between abstract class and interfaces?	5M	CO5	L3
		OR			
11	a	Explain different types of multithreading?	5M	CO5	L2
	b	Write a Python program to check that a string contains only a certain set of characters (in this case a-z, A-Z and 0-9)	5M	CO5	L3

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R20 | SET-II | 7 R

CMR TECHNICAL CAMPUS

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B.Tech - III Semester, Supply Examinations, July-2022

Programming with Python [20CS305PC]

(Common to CSM & CSD)

Time: 3 Hours **Max. Marks: 70**

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5. a. Explain various parameter passing methods used in Python. [7M]
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6. a. Write a Python program to find factorial of number using recursion. [7M]
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7. a. Write a short note on Modules & Files. [7M]
   b. Explain try and catch keywords with a suitable example. [7M]

8. a. List and explain various forms of inheritance supported by Python. [7M]
   b. Write the importance of Multithreaded programming. [7M]

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CMR TECHNICAL CAMPUS

UGC AUTONOMOUS

B.Tech. III Sem Supply End Examinations, February-2024

Programming with Python

Common to CSM, CSD, AIML, CSG

Time: 3 Hours **Max. Marks: 70**

Note

i. This Question paper contains Part- A and Part- B.
ii. All the Questions in Part A are to be answered compulsorily.
iii. All Questions from Part B are to be answered with internal choice among them.

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PART-A

10 X 02 = 20 Marks

			Marks	CO	BL
1.	a	What is indentation? Give an example.	2M	CO1	BL1
	b	Write short notes on keywords used in Python.	2M	CO1	BL1
	c	Write short notes on Numpy.	2M	CO2	BL1
	d	Illustrate the use of * operator with strings with an example.	2M	CO2	BL2
	e	What is a list? Provide an example of creating a list using the range() function.	2M	CO3	BL1
	f	Give the features of python dictionaries.	2M	CO3	BL1
	g	Differentiate built-in and user-defined exceptions in Python.	2M	CO4	BL2
	h	List file built-in methods in Python.	2M	CO4	BL1
	i	Differentiate between an abstract class and an interface in Python.	2M	CO5	BL2
	j	Define regular expressions. Provide an example illustrating the use of regular expressions in Python.	2M	CO5	BL1

PART- B

5 X 10 = 50 Marks

			Marks	CO	BL
2.	a	Describe Arithmetic Operators, Assignment Operators, and Bitwise Operators in detail with examples.	5M	CO1	BL2
	b	Illustrate input and output statements available in Python with an example program.	5M	CO1	BL2
		OR			
3	a	Explain the for-loop statement with and without the else suite available in Python with suitable examples.	5M	CO1	BL2
	b	Write a Python program that checks whether a given number is even or odd.	5M	CO1	BL3

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4	a	Explain reshape () and flatten () methods with examples.	5M	CO2	BL2
	b	Write a Python program to multiply two matrices.	5M	CO2	BL3
		OR			
5	a	Discuss the process of sorting strings in Python in detail.	5M	CO2	BL2
	b	Explain the operations performed on strings in Python in detail.	5M	CO2	BL2
6	a	Write a Python program to find the factorial of a given number using recursion.	5M	CO3	BL3
	b	Illustrate common operations performed on lists in Python, such as indexing, slicing, concatenation, and repetition.	5M	CO3	BL2
		OR			
7	a	What is a tuple in Python? Provide examples of creating tuples and discuss how to pass a tuple to a function with an example program.	5M	CO3	BL2
	b	Write a Python program that counts the number of occurrences of a letter in a string, using dictionaries.	5M	CO3	BL3
8	a	What are command-line arguments? Write a Python program to demonstrate command-line arguments.	5M	CO4	BL3
	b	Write short notes on Packages and Modules.	5M	CO4	BL1
		OR			
9	a	Describe how to create, raise, and handle user-defined exceptions in Python with an example program.	5M	CO4	BL2
	b	What is an exception? Discuss the purpose of 'try' and 'except' blocks in Python with an example program.	5M	CO4	BL3
10	a	Write a Python program to define a class named 'Triangle' with attributes 'base' and 'height' and define a function to calculate the area.	5M	CO5	BL3
	b	Discuss the use of inheritance with an example program.	5M	CO5	BL2
		OR			
11	a	Compare and contrast the process and thread in detail.	4M	CO5	BL4
	b	What is multithreading? Write a Python program to create and run multiple threads.	6M	CO5	BL3

CO : Course Outcomes

BL : Bloom's Taxonomy Levels **L 1 : Remembering** **L 2 : Understanding** **L 3 : Applying** **L 4 : Analysing** **L 5 : Evaluating** **L 6 : Creating**

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