

Code: 20CS6421

**II B.Tech - II Semester – Regular Examinations – MAY 2024**

**ADVANCED PYTHON PROGRAMMING  
(HONORS in COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
<b>UNIT-I</b>					
1	a)	Develop suitable python code to display the following operations using a deck of cards. Initial deck of cards, shuffled deck of cards, cards in Hands, and remaining deck of cards.	L3	CO2	7 M
	b)	Explain different functions for converting floating-point values to decimal number with suitable Python code snippet.	L2	CO1	7 M
<b>OR</b>					
2	a)	Express several options for rounding the decimal values to keep values within the desired precision. Explain with suitable python code.	L2	CO1	6 M
	b)	Explain the following functions with suitable python code. <b>sum(), fsum(), gamma(), lgamma()</b>	L2	CO1	8 M

<b>UNIT-II</b>					
3	a)	Develop the python code to, i) Format the text using fill(). ii) Remove Existing Indentation	L3	CO2	5 M
	b)	Explain the following with suitable description. i) Regular Expression Escape Codes. ii) Regular Expression Anchoring Codes. iii) Regular Expression Flag Abbreviations.	L2	CO2	9 M
<b>OR</b>					
4	a)	Explain the result of Combining Dedent and Fill with suitable python code.	L4	CO2	5 M
	b)	Explain about difflib module that contains tools for computing and working with differences between sequences.	L2	CO2	9 M
<b>UNIT-III</b>					
5	a)	“The functools module provides tools for adapting or extending functions and other callable objects, without completely rewriting them”. Justify your answer with suitable Python code.	L4	CO3	7 M
	b)	Explain signaling with threads using suitable python code.	L2	CO3	7 M
<b>OR</b>					
6	a)	Explain different functions that work with sequence data sets in itertools module.	L2	CO3	7 M
	b)	Compare Daemon and Non-Daemon Threads.	L2	CO3	7 M

<b>UNIT-IV</b>					
7	a)	Explain different container data types of collections module.	L2	CO4	7 M
	b)	Develop python program to create minheap and explain code with suitable example.	L3	CO4	7 M
<b>OR</b>					
8	a)	Define array. Write a python code to write and read array from files using built-in methods.	L2	CO4	8 M
	b)	Explain how to insert items into a list in sorted order with python code.	L3	CO4	6 M
<b>UNIT-V</b>					
9	a)	Explain the implementation of the following data structures in python programming. i) Basic FIFO Queue. ii) LIFO Queue.	L3	CO5	8 M
	b)	Interpret whether it is more convenient to use a weakref proxy rather than a weakref reference.	L3	CO5	6 M
<b>OR</b>					
10	a)	What is struct module? Explain how the functions of it are used for converting binary data to native Python data types.	L2	CO5	8 M
	b)	Explain the usage of the following functions in python programming language. <b>i) pprint(),            ii) pformat(),</b> <b>iii) deepcopy()</b>	L2	CO5	6 M