CBCS SCHEME

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BPLCK205B/BPLCKB205

Second Semester B.E./B.Tech. Degree Examination, June/July 2023
Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	**a.**	Demonstrate with example print ( ), input ( ) and string replication.	**6**	**L3**	**CO1**
	b.	Develop a program to generate Fibonacci square of length (N). Read N from the console.	**6**	**L3**	**CO1**
	c.	Explain elif, for , while , break and continue statements in python with examples for each.	**8**	**L2**	**CO1**
		OR			
Q.2	**a.**	What are user defined functions? How can we pass parameters in user defined functions? Explain with suitable example.	**5**	**L1**	**CO1**
	b.	Explain Local and Global scope with variables for each.	**8**	**L2**	**CO1**
	c.	Develop a program to read the name and year of birth of a person. Print whether the person is a senior citizen or not.	**7**	**L3**	**CO1**
		Module – 2			
Q.3	**a.**	What is a List? Explain append ( ) , insert ( ) and remove ( ) methods with examples.	**8**	**L2**	**CO2**
	b.	Explain the following methods with example : i) keys ( ) ii) values ( ) iii) items ( ) in a dictionary.	**12**	**L2**	**CO2**
		OR			
Q.4	**a.**	How is tuple different from a list and which function is used to convert list to tuple? Explain.	**6**	**L2**	**CO2**
	b.	List the merits of dictionary over list.	**4**	**L1**	**CO2**
	c.	Read N numbers from the console and create a list. Develop a program to compute and print mean , variance and standard deviation with messages.	**10**	**L3**	**CO2**
		Module – 3			
Q.5	**a.**	Explain the following methods with suitable examples : i) upper ( ) ii) lower ( ) iii) is_upper ( ) iv) is_lower ( )	**8**	**L2**	**CO3**
	b.	Illustrate with example opening of a file with open ( ) function, reading the contents of the file with read ( ) and writing to files with write ( ).	**12**	**L2**	**CO3**

		OR			
Q.6	**a.**	Explain the steps involved in adding bullets to Wiki – Markup. Support with appropriate code.	**10**	**L2**	**CO3**
	b.	Develop a program to sort the contents of a text file and write the sorted contents into a separate text file. [Use strip ( ) , len ( ) , list methods sort ( ) , append and file methods open ( ) , readlines ( ) and write ( )].	**10**	**L3**	**CO3**
		Module – 4			
Q.7	**a.**	How do you copy files and folders using Shutil module? Explain in detail.	**6**	**L2**	**CO3**
	b.	What are Assertions? Write the contents of an assert statement. Explain them with examples.	**8**	**L2**	**CO3**
	c.	Illustrate the logging levels in python.	**6**	**L2**	**CO3**
		OR			
Q.8	**a.**	With suitable code, explain Backing up a Folder into a Zip file. Clearly mention the steps involved.	**12**	**L2**	**CO3**
	b.	Explain the logging module and debug the factorial of number program.	**8**	**L3**	**CO3**
		Module – 5			
Q.9	**a.**	What is a Class? How to define class in Python? How to initiate a class and how the class members are accessed?	**8**	**L2**	**CO4**
	b.	Define Pure function. Illustrate with an example Python program.	**8**	**L3**	**CO4**
	c.	Explain Printing objects.	**4**	**L1**	**CO4**
		OR			
Q.10	**a.**	What is Polymorphism? Demonstrate polymorphism with functions to find histogram to count the numbers of times each letters appears in a word and in sentence.	**10**	**L3**	**CO4**
	b.	Write Deck methods to add, remove shuffle and sort cards, with illustrating the problem.	**10**	**L2**	**CO4**

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BPLCK205B/ BPLCKB205

Second Semester B.E./B.Tech. Degree Examination, Dec.2023/Jan.2024
Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	**a.**	Explain Local and global variable and scope of variable in python.	**7**	**L1**	**CO1**
	b.	List and explain with example different comparison and Boolean operators.	**8**	**L1**	**CO1**
	c.	Write a python program to generate Fibonalli sequence of length 'n'.	**5**	**L3**	**CO1**
		OR			
Q.2	**a.**	List and explain with syntax and example the flow control statement in python.	**10**	**L1**	**CO1**
	b.	Demonstrate with example print( ), input( ) and string replication function in python.	**6**	**L2**	**CO1**
	c.	Develop a program to read the name and year of birth of a person. Display weather person is senior citizen or not?	**4**	**L3**	**CO1**
		Module – 2			
Q.3	**a.**	What is a list? Explain append( ), insert( ), and remove methods with example.	**10**	**L1**	**CO2**
	b.	Explain the methods of list data types in python for the following operations with suitable code snippet for each. i) Adding value to list ii) Remaining value from list iii) Finding a value in a list iv) Sorting the value in a list v) Reversing a value in list	**10**	**L1**	**CO2**
		OR			
Q.4	**a.**	Explain get( ), item( ), keys( ) and values( ) methods of dictionary in python.	**8**	**L2**	**CO2**
	b.	How is tuple different from list? Which function is used to convert list to tuple?	**7**	**L1**	**CO2**
	c.	Differentiate between list and dictionary.	**5**	**L2**	**CO2**
		Module – 3			
Q.5	**a.**	Explain the syntax and example various string methods.	**7**	**L1**	**CO3**
	b.	Discuss the following methods of OS module i) chdir( ) ii) rmdir( ) iii) walk( ) iv) list dire( )	**8**	**L1**	**CO3**

	c.	Read multidigit number from console. Develop a program to print frequency of occurrence of each digit with suitable message.	**5**	**L3**	**CO3**
		OR			
Q.6	**a.**	Explain File reading and writing process with suitable python program.	**7**	**L3**	**CO3**
	b.	With code snippet, explain saving variables using shelve module and print( ) and print format( ) functions.	**6**	**L2**	**CO3**
	c.	Write a python code to implement multiclip board project in python.	**7**	**L3**	**CO3**
		Module – 4			
Q.7	**a.**	Explain the functions of shutil module with example.	**10**	**L1**	**CO3**
	b.	What is meant by compressing files? Explain reading, extracting and crating zip files with code snippet.	**10**	**L1**	**CO3**
		OR			
Q.8	**a.**	Explain the following file operation in python with example. i) Copying files and folders ii) Moving files and folders iii) Permanently deleting files and folders	**6**	**L1**	**CO3**
	b.	Define assertions. What does an assert statement in python consists of? Give an example.	**7**	**L1**	**CO3**
	c.	Develop a program to sort contents of a text file and write the forted content into a separate file.	**7**	**L3**	**CO3**
		Module – 5			
Q.9	**a.**	Explain operator overloading and polymorphism with example.	**7**	**L1**	**CO4**
	b.	Explain the concept of pure functions and modifiers with python code.	**7**	**L1**	**CO4**
	c.	Write a function called print time that takes a time object and print it in the form of hour: minute: second?	**6**	**L3**	**CO4**
		OR			
Q.10	**a.**	What is class? How do we define class? How class members are accessed, explain with examples.	**6**	**L1**	**CO4**
	b.	Explain – init( ) and – str( ) method with an example.	**8**	**L1**	**CO4**
	c.	Discuss type based dispatch in python.	**6**	**L1**	**CO4**

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BPLCK205B / BPLCKB205

Second Semester B.E./B.Tech. Degree Examination, June/July 2024
Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	**a.**	Explain with example print( ), input( ) and len( ).	**6**	**L2**	**CO1**
	b.	Explain elif, for, while statement in python with example.	**6**	**L2**	**CO1**
	c.	Develop a program to generate Fibonacci sequence of Length(N).Read N from the console.	**8**	**L3**	**CO1**
		OR			
Q.2	**a.**	What are functions? Explain python function with parameters and return statement.	**6**	**L2**	**CO1**
	b.	How to handle exception in python with example.	**6**	**L2**	**CO1**
	c.	Explain Local and Global scope with variables for each.	**8**	**L2**	**CO1**
		Module – 2			
Q.3	**a.**	Explain the use of in and not in operator in list with examples.	**6**	**L2**	**CO2**
	b.	Explain negative Indexing, slicing, index( ), append( ), remove( ), pop( ), insert( ) and sort( ) with suitable example.	**8**	**L2**	**CO2**
	c.	Write about Mutable and Immutable data type in list.	**6**	**L2**	**CO2**
		OR			
Q.4	**a.**	Explain the following list methods with examples. i) index ( ) ii) append( ) iii) insert( ) iv) sort( ) v) reverse( ) vi) List concatenation and Replication.	**10**	**L2**	**CO2**
	b.	Develop a program to read the student details like Name, USN and Marks in three subjects. Display the student details, total marks and percentage with suitable messages.	**10**	**L3**	**CO2**
		Module – 3			
Q.5	**a.**	Illustrate with example opening of a life with open( ) function, reading the contents of the file with read( ) and writing to files with write ( ).	**10**	**L2**	**CO3**
	b.	Explain how to save variable with the shelve module.	**10**	**L2**	**CO3**

		OR			
Q.6	**a.**	Explain the following string methods with examples. i) isalpha( ) ii) isalnum( ) iii) isdecimal( ) iv) isspace( ) v) istitle( ).	**10**	**L2**	**CO3**
	b.	Explain about in and not in operators in string.	**5**	**L2**	**CO3**
	c.	Explain about pyperclip module.	**5**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	What are Assertions? Write the contents of an assert statement. Explain them with examples.	**10**	**L2**	**CO3**
	b.	Develop a program with a function named DivExp which takes Two parameters a, b and returns a value c(c = a/b), write suitable assertion for a > 0 in function DivExp and raise an exception for when b = 0. Develop a suitable program which reads two values from the console and calls a function DivExp.	**10**	**L3**	**CO3**
		OR			
Q.8	**a.**	Explain about files and folders can be copied using shutil module.	**10**	**L2**	**CO3**
	b.	Explain about Debug control window.	**10**	**L2**	**CO3**
		Module – 5			
Q.9	**a.**	Explain about class and objects.	**10**	**L2**	**CO4**
	b.	Explain about pure function and modifier.	**10**	**L2**	**CO4**
		OR			
Q.10	**a.**	Explain the concept of prototyping Vs planning.	**10**	**L2**	**CO4**
	b.	Explain _init_ and _str_methods with examples.	**10**	**L2**	**CO4**

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BPLCK105B/BPLCKB105

First Semester B.E./B.Tech. Degree Supplementary Examination, June/July 2024

Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain the following functions with examples: i) input ii) print iii) len iv) str v) int	10	L2	CO1
	b.	Explain **if** and **elif** control statements with syntax and flowchart.	5	L2	CO1
	c.	Write a program to read name and year of birth of a person. Display whether the person is a senior citizen or not.	5	L3	CO1
		OR			
Q.2	a.	Explain the following with example: i) Def Statements with Parameters ii) Parameters and Return Values	8	L3	CO1
	b.	Explain the following, with syntax and example: i) for loop ii) break iii) continue	12	L3	CO1
		Module – 2			
Q.3	a.	Define list. Explain append( ), index( ), sort( ) and insert( ) list methods with example.	10	L3	CO2
	b.	Read 10 numbers from a console and create a list. Develop a program to print the elements of created list, sorted list and reversed list.	6	L3	CO2
	c.	Explain copy( ) and deepcopy( ) functions of copy module.	4	L3	CO2
		OR			
Q.4	a.	Define dictionary. Explain the following methods of dictionary i) setdefault ii) get iii) keys iv) items	10	L2	CO2
	b.	Write a program to count the number of occurrences of each letter in a given string. Use pretty print to format your output.	10	L3	CO3
		Module – 3			
Q.5	a.	Explain how individual elements of a string are accessed. How to extract a part of a string? Explain with examples.	10	L3	CO3
	b.	Explain any 5 string methods with syntax and example.	10	L3	CO3

		OR			
Q.6	**a.**	Explain any 5 methods in os.path module related to files.	**10**	**L2**	**CO3**
	b.	Explain file reading and writing process with example.	**10**	**L3**	**CO3**
		Module – 4			
Q.7	**a.**	Write a program to display folder name, list of subfolders, and files in the working directory using os.walk( ).	**5**	**L3**	**CO3**
	b.	Explain the following with respect to shutil module. i) Copying files and folders ii) Moving and renaming files and folders.	**8**	**L3**	**CO3**
	c.	Write a program to backup a folder into a ZIP file.	**7**	**L3**	**CO3**
		OR			
Q.8	**a.**	What is an assertion? Explain how to use assert keyword with an example.	**7**	**L3**	**CO3**
	b.	Explain the different logging levels.	**7**	**L2**	**CO3**
	c.	Demonstrate reading and extracting from zip files using zipfile module.	**6**	**L3**	**CO3**
		Module – 5			
Q.9	**a.**	Explain _ _ init_ _, _ _str_ _, _ _add _ _ methods with example.	**12**	**L3**	**CO4**
	b.	Explain type based dispatch with example.	**8**	**L3**	**CO4**
		OR			
Q.10	**a.**	Define classes and objects. Write a program to create a class called student with attributes name, usn, sem, sec and create two student objects. Read and print the details of two students using appropriate methods.	**12**	**L3**	**CO4**
	b.	Explain pure functions with examples.	**8**	**L3**	**CO4**

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BPLCK205B/BPLCKB205

Second Semester B.E./B.Tech. Degree Supplementary Examination, June/July 2024

Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	**a.**	Explain elif, for, while statement in python with example for each.	**06**	**L2**	**CO1**
	b.	List and explain math operators used in python with example.	**06**	**L2**	**CO1**
	c.	Develop a program to read the name and year of birth of a person. Print whether person is senior citizen or not.	**08**	**L3**	**CO1**
		OR			
Q.2	**a.**	Explain local and global scope with example.	**06**	**L2**	**CO1**
	b.	With an example, explain the following built in function : (i) print( ) (ii) input( ) (iii) len( )	**06**	**L2**	**CO1**
	c.	Develop a program to generate Fibonacci number of length (N). Read N from the console.	**08**	**L3**	**CO1**
		Module – 2			
Q.3	**a.**	Explain the following list methods with example : (i) append( ) (ii) insert( ) (iii) sort( )	**08**	**L2**	**CO2**
	b.	Differentiate List and dictionaries.	**04**	**L1**	**CO2**
	c.	Develop a program using dictionary to print Ten most frequently appearing word in a text file.	**08**	**L3**	**CO2**
		OR			
Q.4	**a.**	Explain the following method with example: (i) key( ) (ii) values( ) (iii) items( ) in dictionary	**08**	**L2**	**CO2**
	b.	Show that List are Mutable.	**04**	**L1**	**CO2**
	c.	Develop a program to compute Mean, Variance, Standard deviation with message.	**08**	**L3**	**CO2**
		Module – 3			
Q.5	**a.**	Explain the following string method with example: (i) isalpha( ) (ii) isalnum( ) (iii) isdecimal( ) (iv) isspace( )	**08**	**L1**	**CO3**

	b.	Differentiate between absolute and relative path in specify file path.	**04**	**L2**	**CO3**
	c.	Write a program to accept string and display total number of alphabet.	**08**	**L3**	**CO3**
		OR			
Q.6	**a.**	Explain the following method with example: (i) upper( ) (ii) lower( ) (iii) is_upper( ) (iv) is_lower( )	**08**	**L2**	**CO3**
	b.	Explain how to save variable with Shelve module.	**04**	**L2**	**CO3**
	c.	Develop a program to sort the content of a text file and write the sorted content into separate file.	**08**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	How do you copy files and folders using Shutil module? Explain in detail.	**10**	**L2**	**CO3**
	b.	With suitable code, explain Backup a folder into a Zip files, clearly mention steps in detail.	**10**	**L3**	**CO3**
		OR			
Q.8	**a.**	What are assertions? Write the content of an assert statement. Explain then with example.	**10**	**L2**	**CO3**
	b.	Explain logging module with example how files and folder can be permanently deleted.	**10**	**L2**	**CO3**
		Module – 5			
Q.9	**a.**	What is a class? How to define class in python? How to initiate a class and how the class members are accessed?	**10**	**L2**	**CO4**
	b.	What is polymorphism? Demonstrate polymorphism with function to find histogram to count the number of times each letter appears in a word and in sentences.	**10**	**L3**	**CO4**
		OR			
Q.10	**a.**	Discuss operator overloading. Mention any five operators with respective special function to be overloaded in python.	**10**	**L2**	**CO4**
	b.	Define pure function. Illustrate with an example.	**10**	**L3**	**CO4**

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BPLCK105B/ BPLCKB105

First Semester B.E./B.Tech Degree Examination, June/July 2024
Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	**a.**	Define comparison operator and list its type. Give the difference between = = and = operator.	**4**	**L1**	**CO1**
	b.	Explain flow control statement in detail with if, else, whileloop and forloop.	**10**	**L2**	**CO1**
	c.	Build a function to calculate factorial of a number. Develop a program to compute binomial coefficient.	**6**	**L3**	**CO1**
		OR			
Q.2	**a.**	Define exception in python programming and give the basic form of an exception handling block with an example.	**8**	**L1**	**CO1**
	b.	Explain how to define function and to make a function call by passing an argument with an example.	**4**	**L2**	**CO1**
	c.	Develop a python program to read the name and year of birth of a person and to display whether the person is a senior citizen or not.	**8**	**L3**	**CO1**
		Module – 2			
Q.3	**a.**	Explain in detail about append( ) and index( ) function with respect to list in python.	**6**	**L2**	**CO2**
	b.	Develop suitable python program with nested list to explain copy( ) and deepcopy( ) methods.	**6**	**L3**	**CO2**
	c.	Tuples are immutable. Explain with an example.	**8**	**L2**	**CO2**
		OR			
Q.4	**a.**	Explain the below methods in list with suitable code : i) remove( ) ii) sor( ) iii) reverse( ).	**6**	**L2**	**CO2**
	b.	Outline python dictionaries with some of their methods.	**8**	**L2**	**CO2**
	c.	Explain Nested dictionaries with an example.	**6**	**L2**	**CO2**

Module – 3					
Q.5	**a.**	Develop a code to print to most frequently appearing words in a text file.	**10**	**L3**	**CO3**
	b.	Explain below python string handling function with example : i) split( ) ii) rjust( ) iii) partition( ) iv) join( ) v) startwith( ).	**10**	**L2**	**CO3**
OR					
Q.6	**a.**	Explain the method to restore the data to variable from the hard drive.	**10**	**L2**	**CO3**
	b.	Develop a program to sort the contents of a tent file and write the sorted content into a separate text file.	**10**	**L3**	**CO3**
Module – 4					
Q.7	**a.**	Explain various shell utilities function.	**10**	**L2**	**CO3**
	b.	Develop a program to read and to extract all the files and folder into a ZIP file by using relevant methods.	**10**	**L3**	**CO3**
OR					
Q.8	**a.**	Explain permanent delete and safe delete with a suitable python programming.	**10**	**L2**	**CO3**
	b.	Define Assertion. Explain the use of Assertion in a Traffic light simulation with a python program.	**10**	**L2**	**CO3**
Module – 5					
Q.9	**a.**	Define pure function and modifier. Explain the role of pure function and modifier in application development.	**10**	**L2**	**CO3**
	b.	Explain the methods _int_ and _str_ with example.	**10**	**L2**	**CO3**
OR					
Q.10	**a.**	Define operator overloading. Explain with suitable python program.	**10**	**L2**	**CO4**
	b.	Define polymorphism and give a suitable python program.	**10**	**L1**	**CO4**

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BPLCK105B/BPLCKB105

First Semester B.E./B.Tech. Degree Examination, Dec.2023/Jan.2024
Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: **1.** ***Answer any FIVE full questions, choosing ONE full question from each module.***
2. ***M : Marks , L: Bloom's level , C: Course outcomes.***

		Module – 1	M	L	C
Q.1	**a.**	List and explain the use of comparison operator in python. Write the step by step execution of the following expression in python. 3/2 * 4 + 3 + (10/4)**3 – 2	**6**	**L1**	**CO1**
	b.	Explain the control statements, if, else, elif with proper syntax and examples.	**6**	**L2**	**CO1**
	c.	Develop a python program to calculate the area and circumference of a circle input the value of radius and print the results.	**8**	**L3**	**CO1**
		OR			
Q.2	**a.**	Explain the string concatenation and string replication operator with an example.	**6**	**L2**	**CO1**
	b.	Explain local and global scope of variable with suitable example.	**6**	**L2**	**CO1**
	c.	Develop a program to read the student details Like Name, USN and Marks in three subjects. Display the student details, total marks and percentage with suitable messages.	**8**	**L3**	**CO1**
		Module – 2			
Q.3	**a.**	What is list? Explain the concept of list indexing and slicing with examples.	**6**	**L2**	**CO2**
	b.	With suitable examples, explain the list methods append( ), extend( ), sort( ), count( ) and pop( ).	**8**	**L2**	**CO2**
	c.	Read N numbers from the console and create a list. Develop a program to print mean, variance and standard deviation with suitable message.	**6**	**L3**	**CO2**
		OR			
Q.4	**a.**	Define tuple data type? List out the difference between tuple and list.	**6**	**L2**	**CO2**
	b.	Identify and explain the dictionary methods like get( ), item( ), keys( ) and values ( ) in python with examples.	**8**	**L2**	**CO2**
	c.	Develop a python program to swap two numbers without using Intermediate variables. Prompt the user for input.	**6**	**L2**	**CO3**

		Module – 3			
Q.5	**a.**	Write the output of the following : i) 'HeLLo' · upper( ) · isupper ( ) ii) 'HeLLo' · upper( ) · lower( ) iii) '__' · Join('There can be only one' · split( ))	**6**	**L2**	**CO3**
	b.	With examples, explain any five string methods.	**6**	**L2**	**CO3**
	c.	Develop a python program to count the total number of vowels, consonants in a string.	**8**	**L3**	**CO3**
		OR			
Q.6	**a.**	Make use of the concept of file handling and explain Reading and writing process with suitable python programs.	**7**	**L2**	**CO3**
	b.	Explain the concept of file path, also discuss absolute and relative paths.	**7**	**L2**	**CO3**
	c.	Briefly, explain saving variables with shelve module.	**6**	**L2**	**CO3**
		Module – 4			
Q.7	**a.**	Explain the following file operations in python with suitable examples. i) Copying files and folders ii) Moving files and folders iii) Permanently deleting files and folders	**6**	**L2**	**CO3**
	b.	List out the benefits of compressing file with zip file module, also explain the concepts of walking a directory tree.	**8**	**L2**	**CO3**
	c.	List out the difference between shutil.copy( ) and shutil.copytree( ) methods.	**6**	**L3**	**CO3**
		OR			
Q.8	**a.**	Briefly explain Assertion and raising a exception.	**6**	**L2**	**CO3**
	b.	Develop a python program with a function named DivExP which takes two parameters a, b and returns a value C. (C = a/b). Write suitable assertion for a > 0 in function DivExP and raise on exception for when b = 0. Program has to read two values from the console and call a function DivExP.	**8**	**L3**	**CO3**
	c.	Briefly explain the difference logging levels.	**6**	**L2**	**CO3**
		Module – 5			
Q.9	**a.**	Define classes and objects in Python. Construct the class called rectangle and initialize it with height = 100, width= 200, starting point as (x = 0, y = 0) and write the method to display the center point coordinates of a rectangle.	**8**	**L2**	**CO4**
	b.	Briefly explain the concept of prototyping and planning.	**6**	**L2**	**CO4**
	c.	Explain Clearly _ _init( )_ _ and _ _str( )_ _ method with examples.	**6**	**L2**	**CO4**
		OR			
Q.10	**a.**	Explain the term objects are mutable with an example.	**6**	**L2**	**CO4**
	b.	Explain the concept of polymorphism with examples.	**8**	**L2**	**CO4**
	c.	Explain briefly pure functions and modifiers with examples.	**6**	**L2**	**CO4**

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BPLCKB105/BPLCK105B

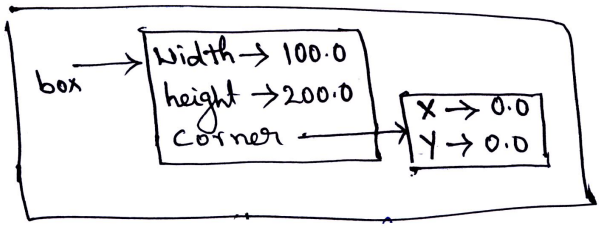
First Semester B.E/B.Tech Degree Examination, June/July 2023
Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	**a.**	List and explain math operators used in Python with example.	**7**	**L2**	**CO1**
	b.	Write a Python program to check whether the number is even or odd.	**6**	**L3**	**CO1**
	c.	With an example explain user defined functions.	**7**	**L2**	**CO1**
		OR			
Q.2	**a.**	With an example explain the following built-in functions : i) print( ) ii) input( ) iii) len( ).	**6**	**L1**	**CO1**
	b.	How to handle exceptions in Python explain with an example.	**8**	**L1**	**CO1**
	c.	Write a program to print even numbers using step size in range( ).	**6**	**L3**	**CO1**
		Module – 2			
Q.3	**a.**	Explain the following list methods with examples. •index( ), •append( ), •insert( ) , •sort( ), •reverse( ).	**10**	**L2**	**CO2**
	b.	Write a python program to create a dictionary of 10 key-value pairs and print only keys on the screen.	**5**	**L3**	**CO2**
	c.	Explain in and not in operators used in lists with an example.	**5**	**L1**	**CO2**
		OR			
Q.4	**a.**	Show that lists are mutable.	**6**	**L1**	**CO2**
	b.	Write a program to count the frequency of characters using module PPrint(Pretty Printing).	**8**	**L2**	**CO2**
	c.	Explain random.choice and random.shuffle functions with lists.	**6**	L1	**CO2**

Module – 3

Q.5	**a.**	Write the output of following Python code >>>Spam = 'Hello, World!' i) >>>Spam[0] ii) >>Spam[4] iii) >>>Spam[–1] iv) Spam[0 : 5] v) >>> Spam [:5] vi) >>>Spam[7 :].	**6**	**L1**	**CO3**
	b.	Write a program to accept string and display total number of alphabets.	**6**	**L3**	**CO3**
	c.	Explain how to save variables with the Shelve module.	**8**	**L1**	**CO3**
		OR			
Q.6	**a.**	Explain the following string methods with examples : i) isalpha( ) ii) isalnum( ) iii) isdcimal( ) iv) isspace( ) v) istitle( ).	**10**	**L1**	**CO3**
	b.	Write a Python program that repeatedly asks users for their age and a Password until they provide valid input. [age is in digit and Password in alphabet an digit only].	**6**	**L3**	**CO3**
	c.	Differentiate between Absolute and relative paths in specifying file paths.	**4**	L2	**CO3**
		Module – 4			
Q.7	**a.**	Show that files and folders can be copied using Shutil module.	**8**	**L1**	**CO4**
	b.	Write a note on Raising exceptions in Python.	**7**	**L1**	**CO4**
	c.	Explain five buttons available in the Debug Control Window.	**5**	L2	**CO4**
		OR			
Q.8	**a.**	Describe logging levels used in Python to categorize log messages by importance.	**10**	**L2**	**CO4**
	b.	With example show how files and folders can be permanently deleted.	**10**	**L1**	**CO4**
		Module – 5			
Q.9	**a.**	Write a program to implement the following object diagram and its functionality as shown in Fig.9(a). Initialize the attributes through a constructor and print the same.  Fig.Q9(a)	**10**	**L3**	**CO4**
	b.	Discuss operator overloading. Mention any five operators with respective special functions to be overloaded in Python.	**10**	**L2**	**CO4**
		OR			
Q.10	**a.**	Explain the following with an example : i) isinstance( ) ii) hasattr( ) iii) copy.copy iv) copy.deepcopy( ).	**8**	**L2**	**CO4**
	b.	Write a program to explain pure function and modifier function.	**12**	**L3**	**CO4**

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BPLCK105B/BPLCKB105

First Semester B.E./B.Tech. Degree Examination, Jan./Feb. 2023
Introduction to Python Programming

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	What is the need for role of precedence? Illustrate the rules of precedence in Python with example.	6	L2	CO1
	b.	Explain the local and global scope with suitable examples.	6	L2	CO1
	c.	Develop a program to generate Fibonacci sequence of length (N). Read N from the console.	8	L3	CO1
		OR			
Q.2	a.	What are functions? Explain Python function with parameters and return statements.	7	L2	CO1
	b.	Define exception handling. How exceptions are handled in python? Write a program to solve divide by zero exception.	7	L2	CO1
	c.	Develop a python program to calculate the area of rectangle and triangle print the result.	6	L3	CO1
		Module – 2			
Q.3	a.	Explain negative indexing, slicing, index( ), append( ), remove( ), pop( ), insert( ) and sort( ) with suitable example.	8	L2	CO2
	b.	Explain the use of in and not in operators in list with suitable examples.	6	L2	CO2
	c.	Develop a program to find mean, variance and standard deviation.	6	L3	CO2
		OR			
Q.4	a.	Explain the following methods in lists with an examples: i) len( ) ii) sum( ) iii) max( ) iv) min( ).	8	L2	CO2
	b.	Explain set( ) and setdefault( ) method in a dictionary.	6	L2	CO2
	c.	Develop a Python program to swap cases of a given string input: Java output: jAVA.	6	L3	CO2
		Module – 3			
Q.5	a.	Explain join( ) and split( ) method with examples.	8	L2	CO3
	b.	Explain with examples: i) isalpha( ) ii) isalnum( ) iii) isspace( ).	6	L2	CO3
	c.	Develop a python code to determine whether the given string is a palindrome or not a palindrome.	6	L3	CO3

		OR			
Q.6	**a.**	Explain the concept of file handling. Also explain reading and writing process with suitable example.	**8**	**L2**	**CO3**
	b.	Explain the concept of file path. Also discuss absolute and relative file path.	**6**	**L2**	**CO3**
	c.	Briefly explain saving variables with shelve module.	**6**	**L3**	**CO3**
		Module – 4			
Q.7	**a.**	Explain the following file operations in Python with suitable example: i) Copying files and folders ii) Moving files and folders iii) Permanently deleting files and folders.	**6**	**L2**	**CO3**
	b.	List out the benefits of compressing file? Also explain reading of a zip file with an example.	**8**	**L2**	**CO3**
	c.	List out the differences between shutil.copy( ) and shutil.copytree( ) method.	**6**	**L3**	**CO3**
		OR			
Q.8	**a.**	Briefly explain assertions and raising a exception.	**6**	**L2**	**CO3**
	b.	List out the benefits of using logging module with an example.	**6**	**L2**	**CO3**
	c.	Develop a program with a function named DivExp which takes two parameters a, b and returns a value C (C = a/b). Write suitable assertion for a > 0 in function DivExp and raise an exception for when b = 0. Develop a suitable program which reads two values from the console and calls a function DivExp.	**8**	**L3**	**CO3**
		Module – 5			
Q.9	**a.**	Define a class and object, construct the class called rectangle and initialize it with height = 100, width = 200, starting point as (x = 0, y = 0). Write a program to display the center point co-ordinates of a rectangle.	**8**	**L2**	**CO4**
	b.	Explain the concept of copying using copy module with an example.	**6**	**L2**	**CO4**
	c.	Explain the concept of inheritance with an example.	**6**	**L2**	**CO4**
		OR			
Q.10	**a.**	Define a function which takes two objects representing complex numbers and returns new complex number with a addition of two complex numbers. Define a suitable class 'Complex' to represent the complex number. Develop a program to read N(N > = 2) complex numbers and to compute the addition of N complex numbers.	**8**	**L2**	**CO4**
	b.	Explain _ _init_ _( ) and _ _str_ _( ) method with examples.	**6**	**L2**	**CO4**
	c.	Briefly explain the printing of objects with an examples.	**6**	**L2**	**CO4**

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