Model Question Paper-1 with effect from 2019-20 (CBCS Scheme)

USN

Fifth Semester B.E. Degree Examination
Application Development Using Python

TIME: 03 Hours   **Max. Marks: 100**

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

		Module – 1	
Q.1	**(a)**	List the salient features of python programming language.	6
	(b)	What are the different flow control statements supports in python .Explain any 3 with an suitable example program and flow chart.	8
	(c)	Write a python program to calculate the area of circle, rectangular and triangle. print the results.	6
		OR	
Q.2	**(a)**	What is a function? How to define a function in python? Write a program using function to find out the given string is palindrome or not.	6
	(b)	What is local and global scope of variable in python .Explain the different scenarios with an example snippet.	8
	(c)	Write a python program to create a function called collatz() which reads as parameter named number. If the number is even it should print and return number//2 and if the number is odd then it should print and return 3*number+1. The function should keep calling on that number until the function returns a value 1.	6
		Module – 2	
Q.3	**(a)**	What is list? Explain the concept of slicing and indexing with proper examples.	6
	(b)	For a given list num=[45,22,14,65,97,72], write a python program to replace all the integers divisible by 3 with "ppp" and all integers divisible by 5 with "qqq" and replace all the integers divisible by both 3 and 5 with "pppqqq" and display the output.	6
	(c)	What are the different methods supports in python List. Illustrate all the methods with an example.	8
		OR	
Q.4	**(a)**	What is dictionary? Illustrate with an example python program the usage of nested dictionary.	6
	(b)	List out all the useful string methods which supports in python. Explain with an example for each method.	10
	(c)	What are the different steps in project Adding Bullets to Wiki Markup.	4
		Module – 3	
Q.5	**(a)**	What are regular expression? What are the different steps to be follow to use a regular expression in python.	5

	(b)	List out what are the different character classes and its representation also relular expression symbol and its meaning.	9
	(c)	Write a python program to create phone number and email address by using regular expression.	6
		OR	
Q.6	**(a)**	What are the key properties of a file? Explain in detail file reading/writing process with an example of python program.	7
	(b)	Explain in briefly, What are the different methods of file operations supports in python shutil module.	7
	(c)	Write a python program to create a folder PYTHON and under the hierarchy 3 files file1,file2 and file3.write the content in file1 as "VTU" and in file2 as "UNIVERSITY" and file3 content should be by opening and merge of file1 and file2. Check out the necessary condition before write file3.	6
		Module – 4	
Q.7	**(a)**	What is a class? How to define class in python? How to initiate a class and how the class members are accessed?	5
	(b)	Explain init and str method with an example python program.	8
	(c)	Write a python program that uses datetime module within a class, takes a birthday as input and prints the age and the number of days, hours, minutes and second.	7
		OR	
Q.8	**(a)**	What is a pure function? Illustrate with an example python program	6
	(b)	Define polymorphism. Demonstrate polymorphism with function to find histogram to count the numbers of times each letters appears in a word and in sentence.	8
	(c)	What is type based dispatch? Illustrate with python program.	6
		Module – 5	
Q.9	**(a)**	What is web scraping? how to download files from web, check the error and save the downloaded files to hard drive with request module in python.	6
	(b)	Explain in details how to parse HTML with the BeautifulSoup.	7
	(c)	How to work with Excel spreadsheet in python. Explain briefly.	7
		OR	
Q.10	**(a)**	How to work with PDF document in python. Explain with extracting text, decrypting, creating copying pages, encrypting PDF.s	10
	(b)	What is CSV and JSON files? Exaplain with an example program the usage of json module in python.	10

Table showing the Bloom's Taxonomy Level, Course Outcome and Programme Outcome			
Question		**Bloom's Taxonomy Level attached**	**Course Outcome**	**Programme Outcome**

Question		**Bloom's Taxonomy Level attached**	**Course Outcome**	**Programme Outcome**
Q.1	(a)	L1	CO1	1,2,3
	(b)	L2	CO1	1,2
	(c)	L3	CO1	1,3
Q.2	(a)	L1	CO1	4,5
	(b)	L2	CO1	11,12
	(c)	L3	CO1	8,9
Q.3	(a)	L1	CO2	4,5
	(b)	L2	CO2	1,2,3
	(c)	L3	CO2	4,5
Q.4	(a)	L1	CO2	3,6
	(b)	L2	CO2	9,10,11
	(c)	L3	CO2	1,2,3
Q.5	(a)	L1	CO3	5,6,7
	(b)	L2	CO3	11
	(c)	L3	CO3	5
Q.6	(a)	L1	CO3	4,5
	(b)	L2	CO3	5
	(c)	L3	CO3	5,7
Q.7	(a)	L1	CO4	3,4
	(b)	L1	CO4	3,4
	(c)	L3	CO4	4,5
Q.8	(a)	L2	CO4	3,5
	(b)	L1	CO4	2,3
	(c)	L3	CO4	1,4
Q.9	(a)	L2	CO5	5
	(b)	L2	CO5	5
	(c)	L3	CO5	5
Q.10	(a)	L2	CO5	5
	(b)	L2	CO5	5

Bloom's Taxonomy Levels	**Lower order thinking skills**		
	Remembering(knowledge):L_1	Understanding Comprehension): L_2	Applying (Application): L_3
	Higher order thinking skills		
	Analyzing (Analysis): L_4	Valuating (Evaluation): L_5	Creating (Synthesis): L_6