

**CONTINUOUS INTERNAL EVALUATION- 3**

Dept: EC	Sem / Div: VI / A/B	Course: Python Application Programming	Course Code: 18EC646
Date: 22/7/2022	Time: 3:00 to 4:30 p.m	Max Marks: 50	Elective: Y
Note: Answer any 2 full questions, choosing one full question from each part.			

Q N	Questions	Marks	RBT	COs															
PART A																			
1 a	(i)What are functions and methods in classes. Differentiate them with an example (ii)Write a python program to express instances as return values to define a class RECTANGLE with members width, height, corner_x, corner_y and member function: to find centre, area and perimeter of a rectangle.	10	L2,L3	CO4															
b	Explain init () and str () methods with an example program	5	L2	CO4															
c	(i) Table 1 below shows the record of four students Name and marks scored in PAP subject in IA1 and IA2. (a) Write an Python program to execute SQL command to create a table PAP_MARKS with fields Name, IA1 and IA2 (b)Write an Python program to execute SQL command to Insert 4 records as shown in the table (c)Write an Python program to execute SQL command to display the students name and marks who has scored above 40 in both IA's. (d) Write an Python program to execute SQL command to display the students name and marks who has scored below 24 in both IA's.	10	L3	CO5															
Table 1: PAP MARKS																			
<table><tr><th>Name</th><th>IA1</th><th>IA2</th></tr><tr><td>Divyashree</td><td>47</td><td>50</td></tr><tr><td>Vishwajith</td><td>48</td><td>45</td></tr><tr><td>Adarsh M</td><td>8</td><td>16</td></tr><tr><td>Aaron Lobo</td><td>10</td><td>14</td></tr></table>					Name	IA1	IA2	Divyashree	47	50	Vishwajith	48	45	Adarsh M	8	16	Aaron Lobo	10	14
Name	IA1	IA2																	
Divyashree	47	50																	
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OR																			
2 a	(i)What is a class? How to define class in Python?. How to instantiate a class and how the members are accessed? Illustrate with an example program (ii)Write a program that has a class point with attributes as X and Y co ordinates. Create two objects of this class and find the midpoint of both the points. Add a method reflex_y to class point, which returns a new point. Which is the reflection of the point about the y-axis. Ex: p1=point(1,2) p2=point(2,4) print(midpoint(p1,p2)) #prints (1.5,3) p1=point(5,10)	10	L2,L3	CO4															



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	<code>print(pl.reflex_y()) #prints (-5,10)</code>			
b	Write a python code to read the file(text/plain document) from web using urllib and retrieve the data content from the file and also compute the frequency of each word in the file	5	L3	CO5
c	(i) Define cursor? Explain connect, execute and close command of databases with suitable example (ii) What is service oriented architecture? List the advantages of the same	10	L2,L3	CO5
<b>PART B</b>				
3 a	(i) Explain operator overloading in Python with an example program. (ii) Analyze the below program, write the equivalent class and its methods to implement the following code successfully <code>data1= integer(10)</code> <code>data2=integer(20)</code> <code>print(data1+data2) #prints 30</code> <code>print(data2-(data1))#prints 10</code> <code>print(data1*data2)#prints 200</code> <code>print(data2/data1)#prints 2.0</code> In the above program data1 and data2 are the objects of the class integer	10	L2,L3	CO4
b	Explain the support for Parsing HTML using regular expression with an example program	5	L2,L3	CO5
c	(i) What is JSON? Illustrate the concept of parsing JSON with python code (ii) Write a python script to parse the urllinks embedded in html file using BeautifulSoup.	10	L2,L3	CO5
<b>OR</b>				
4 a	(i) Write a Python program to create an class TIME with attributes hour, minute and second. Create two objects of the class TIME start and end. Set the values of start hour=3, minute=0 ,second=0 and end hour=4, minute=30, second=0. Estimate the duration to be obtained by subtracting end from start time object. <b>Expected Answer:</b> <code>print(end-start) #prints 01:30:00</code> (ii) Define Polymorphism. Demonstrate polymorphism with function to find histograms to count the numbers of time each letters appears in a word and in sentence.	10	L2,L3	CO4
b	Explain the concept of pure functions with python code	5	L2,L3	CO4
c	(i) Define socket? Write a python program that makes a connection to a webserver and follows the rules of HTTP protocol to request a plain text document and display what server sends back. (ii) Create an XML string to address your name, phone number and email id. Write Python script to parse the name and email from the XML string.	10	L2,L3	CO5