GIET UNIVERSITY, GUNUPUR – 765022

B. Tech (Fourth Semester Regular) Examinations, May – 2024

22BCDES24001 - Python Programming for Data Science

(CSE – Data Science)

Time: 3 hrs Maximum: 70 Marks

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions		CO #	Blooms Level
a.	How to read multiple values from the keyboard in a single line.	CO1	K2
b.	Define the purpose of type(), id(), range(), print().	CO1	K1
c.	Explain the concept of tuple packing and unpacking with an example.	CO2	K2
d.	How to define multi-line String literals and swapping of 2 numbers in a single line.	CO2	K2
e.	List out the differences between List and Numpy array.	CO2	K1

PART – B **(15 x 4 = 60 Marks)**

Answer ***ALL*** questions		Marks	CO #	Blooms Level
2. a.	Justify whether the nesting of the ternary operator is possible or not. Write a Python program for a minimum of 3 numbers using a ternary operator and the input must be dynamic.	7	CO2	K3
b.	Summarise the base conversion methods with examples: bin(), oct(), hex().	8	CO2	K2
	(OR)			
c.	Write a program that accepts a string and a number x. Then print each character of x time.(paper doll problem) ex: hai, 2 will give output as hhaaii.	7	CO3	K3
d.	Justify that returning multiple values from a function or not with an example.	8	CO3	K3
3.a.	Define the map, reduce, and filter functions with an example.	7	CO3	K2
b.	Explain the concept of inheritance. Illustrate multi-level and multiple inheritances with examples.	8	CO4	K2
	(OR)			
c.	Explain different types of arguments of a function with an example.	7	CO3	K2
d.	Explain the random mudule purpose with any 5 functions along with example.	8	CO3	K2
4.a.	Explain frozen set and set data types and its operations with an example.	7	CO2	K2
b.	Explain user defined exceptions with an example.	8	CO3	K2
	(OR)			
c.	Define default except block with multiple excepts with an example.	7	CO3	K1
d.	Explain the method-overriding concept with an example.	8	CO3	K2
5.a.	Explain different types of methods in a class with an example.	7	CO3	K2
b.	Explain all arithmetic operations, transpose, and sort with row and column wise on Numpy array with an example.	8	CO3	K2
	(OR)			
c.	Explain about series, data frame, and find the correlation of data-frame in Pandas with an example.	7	CO3	K2
d.	Design and draw the vertical bar graph, horizontal bar graph, pie chart for the given data x=[35,25,17,32] and y=[‘Banana’,’Apple’,’Orange’,’Mango’,’Kiw’']	8	CO4	K3

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