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PAPER CODE	U113-202B (18/8)
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MAY 2023(INSEM+ ENDSEM) EXAM**F.Y. B. TECH. (SEMESTER - II)****COURSE NAME: PYTHON FOR ENGINEERS****COURSE CODE: CS10202B****(PATTERN 2020)**

Time: [2Hr]

[Max. Marks: 60]

(*) Instructions to candidates:

- 1) Figures to the right indicate full marks.
- 2) Use of scientific calculator is allowed
- 3) Use suitable data where ever required

Question No.	Question Description	Marks	CO mapped	Blooms Taxonomy Level
Q.1	i. What will be the output of the following Python code? n1 = 5 n2 = n1 n2 is n1 a)True b)False c)Error d)5	[2]	CO1	Understand
	ii. What will be displayed by the following code? str1 = "PYnative" print(str1[1:4], str1[:5], str1[4:], str1[0:-1], str1[:-2]) a)PYnPYnativePYnativvitanYP b)YnaPYnattivePYnativvitanYP c)YnaPYnattivePYnativPYnativ d)YnaPYnattivePYnativPYnati	[2]	CO1	Understand
	iii. What is the output of the following string comparison print("python" < "PYTHON") print("VIIT" > "viit") a) True False c) True True b) False False d) False True	[2]	CO1	Understand
	iv. What will be displayed by the following code? var = "James" * 2 * 3 print(var) a) JamesJamesJamesJamesJamesJames b) JamesJamesJamesJamesJames	[2]	CO1	Understand

c)Error: invalid syntax d) "James" * 2 * 3			
v. Select the correct output of the following String operations myString = "pynative" stringList = ["abc", "pynative", "xyz"] print(stringList[1] == myString) print(stringList[1] is myString) a)True False b)True True c)False True d)False False	[2]	CO1	Understand
vi. What will be the output of the following Python code? vowel_string = 'aeiou' print(list(vowel_string)) c_dictionary = {'b': 1, 'c': 2, 'd': 3, 'f':4, 'g':5} print(list(c_dictionary)) a) ['a', 'e', 'i', 'o', 'u'] ['b', 'c', 'd', 'f', 'g'] c) ['a', 'e', 'i', 'o', 'u'] [1, 2, 3, 4, 5] b) ['aeiou'] ['b', 'c', 'd', 'f', 'g'] d) ['aeiou'] [1, 2, 3, 4, 5]	[2]	CO1	Understand
vii. What is the output of the following? d1={1:"ABC",2:"XYZ",3:"PQR"} d1.clear() print(d1) a) {} c) {1:None,2:None,3:None} b) None d)Type Error	[2]	CO1	Understand
viii.What will be the output of the following Python code? numbers = [2, 3, 5, 7] numbers.sort(reverse=true) print('Reversed List:',numbers) a)[7, 5, 3, 2] b)[2, 3, 5, 7] c)NameError d)[7,3,5,2]	[2]	CO2	Understand
ix. What will be the output of the following Python code? i=0 while i<3: print(i) i +=1 else: print(0) a) 0 1 2 3 0 c) 0 1 2 b) 0 1 2 0 d) error	[2]	CO2	Understand
x. What is the output of the following loop numNames = { 1:'One', 2: 'Two', 3: 'Three'} for pair in numNames.items(): print(pair) a)(1, 'One')(2, 'Two') (3, 'Three') b)('One')('Two')('Three') c) Error d) (1) (2) (3)	[2]	CO2	Understand
xi. What will be the output of the following Python code? if 5>=10: print("India") elif True: print("Pune is Best City!") if True: print("Enjoy") else: print("See you Soon..") a) India b) Enjoy c) Pune is Best City! Enjoy	[2]	CO2	Understand

	d)See you Soon..			
	xii. Which statements are true about the python package a) A Package is collection of modules b)Name of the package corresponds to name of folder containing modules c)Folder must contain __init__.py file d)All of above	[2]	CO2	Understand
	xiii. What will be the output of the following Python code? i = 1 while True: if i% 007 == 0: break print(i) i += 1 a) 1 2 3 4 5 6 b) 1 2 3 4 5 6 7 c) error d) none of the mentioned	[2]	CO2	Understand
	xiv. What will be the output of the following Python code? def outer_fun(a, b): def inner_fun(c, d): return c + d return inner_fun(a, b) return a result = outer_fun(5, 10) print(result) a) 5 b) 15 c)15,5 d) error	[2]	CO2	Understand
	xv. What will be the output of the following Python code? def display(x,y,z): print(x,y,z) tpl=(1,2,3) display(tpl) a) (1,2,3) b)tpl c)(3,2,1) d)Type Error	[2]	CO2	Understand
Q2	Solve any three out of four a. Differentiate between Python list and NumPy array? Write a code to create 1D,2D and 3D array?	[5]	CO3	Understand
	b. Reshape the given input to 3 rows and 3 columns and Write a python code to a)get sum of second column only and b)to find minimum and maximum values from each row and columns respectively Input: Original Array= [14 13 15 12 11 16 17 19 18] Expected Output:a)Reshaped Array= [[[14 13 15] [12 11 16] [17 19 18]] 1st column_sum= 43 b)Min from each row: [13 11 17] Max from each col [17 19 18]	[5]	CO3	Apply
	c Write a NumPy program to get the following expected output of an array values element-wise. arr1=[7,8,11] arr2=[4,3,3] Expected output A = [2401 512 1331] B= [3 2 2]	[5]	CO3	Apply

	d. Describe subplot? Divide the screen vertically and Write a python code to get sin, cosine wave using subplot.	[5]	CO3	Understand
Q.3	Solve any three out of four a. Explain readline() and readlines() function. Write a python program to print the last two lines of a file. Input file: Python is a popular programming language, known for its clear syntax, scalability, and use in AI and machine learning. Some of the biggest companies in the world, including Google, NASA, and Facebook, use Python as an integral part of their systems	[5]	CO4	Apply .
	b. Write the symbols and explain in detail the modes used in text file for the following operations. a) Read Only c) Write only b) Read and Write d) Write and Read What is the difference between write and append mode?	[5]	CO4	Apply
	c. Write a Python program to append text to a file and display the text. Input file: At the end of the day, whether or not those people are comfortable with how you are living your life doesn't matter. What matters is whether you're comfortable with it. Append with following lines: Life has got all those twists and turns. You've got to hold on tight and off you go.	[5]	CO4	Apply
	d. Write a program to accept Roll number and name of five students from the user and write on a file "roll.txt"	[5]	CO4	Understand