

End-Term Examination (Regular & Reappear)
(CBCS)(SUBJECTIVE TYPE)(OffLine)
Course Name:<BTECH AI & ML/CSE-AI>, Semester:<1st Semester>
(December, 2023)

Subject Code: BAI 110	Subject: Programming with Python
Time :3 Hours	Maximum Marks :60
Note:Q. 1 is compulsory. Attempt one question each from the Units I, II, III & IV.	

Q1		(2.5* 8=20)
a.	Write a program to print a string str = 'Programming' in reverse order using range().	
b.	What is a set. Write a python program to convert a string str="Fruitful" to a set	
c.	Write a program to find the index of an element of 10 in between the index at the 3rd position and ending with second last position	
d.	What are the functions used in matplotlib to plot a vertical and horizontal line? Explain any two with syntax to call these functions.	
e.	Given a nested tuple. Write a program to modify the first item '50' of a list inside the following tuple to '100'.	
f.	Explain the following list methods with example: extend(), index() and append()	
g.	When are the following built-in exceptions raised? Give examples to support your answers. a) ImportError b) IOError c) NameError d) ZeroDivisionError	
h.	Write a Python GUI program to import Tkinter package and create a window. Set its title and add a label to the window.	

UNIT-I

Q2	Define python list. How to add an element in a list. Explain with a suitable example.	(10)
Q3	Explain the use of join() and split() string methods with examples. Describe why strings are immutable with an example.	(10)

UNIT-II

Q4	Explain Arbitrary Positional argument and Arbitrary Keywords argument with examples using a function.	(10)
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Q5	Write Pythonic code to create a function called <code>most_frequent</code> that takes a string and prints the letters in decreasing order of frequency. Use dictionaries.	(10)												
UNIT-III														
Q6	<p>Write a program to prompt for a score between 0.0 and 1.0. If the score is out of range, schedule an exception handling process, If the score is between 0.0 and 1.0, print a grade using the following table.</p> <table><tr><td>Score.</td><td>Grade</td></tr><tr><td>≥ 0.9.</td><td>A</td></tr><tr><td>≥ 0.8.</td><td>B</td></tr><tr><td>≥ 0.7.</td><td>C</td></tr><tr><td>≥ 0.6.</td><td>D</td></tr><tr><td>< 0.6.</td><td>E</td></tr></table>	Score.	Grade	≥ 0.9 .	A	≥ 0.8 .	B	≥ 0.7 .	C	≥ 0.6 .	D	< 0.6 .	E	(10)
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Q7	<p>What is exception handling? Given below is a code. Find the exceptions generated when the input of denominator entered is</p> <ul style="list-style-type: none">a. 0,b. 10,c. 'Hello' and <p>provide the statements to be printed while executing exceptions.</p> <pre>print ("Handling exception using try...except...else") try: numerator=50 denom=int(input("Enter the denominator: ")) quotient=(numerator/denom) print ("Division performed successfully") except _____: print (".....") except _____: print (".....") else: print ("The result of division operation is ", quotient)</pre>	(10)												
UNIT-IV														
Q8	What are the different types of data structures in Pandas. Write a program to create data frame using a list, <code>L1=['Hello','world']</code> .	(10)												
Q9	What are the key differences between Module and Package in Python.	(10)												