IILM University, Greater Noida
Mid Semester Examination, Even Semester 2024-25

	Name of the School	School of Computer Science & Engineering	Name of the Department	ML-DS
	Name of the Program	B. Tech CSE	Course Code- Course Name/ Name of faculty	UCS-2003 Python Programming/ Mr. Namit Chawla Mr. Harun
	Session	2024-25	Branch, Year & Semester	CSE, 1st , 2nd Sem
	Time/Maximum Marks	90 Minutes/50	Set	B
	Note: Attempt all questions.			

Q No.	QUESTIONS	MARKS	CO
	SECTION-A		
1	Define looping statements with the help of an exampie.	2	1
2	Write a Python program that takes three sides of a shape as input. If all sides are equal, print "It's a equilateral triangle."; otherwise, print "It's a Scalene or Isosceles triangle"	2	1
3	"Tuples are Immutable in nature". Comment on the statement	2	1
4	**A = 20** **B = 15** **Print(A/B)** Predict the output of the above program	2	2
5	**X = 20** **Y = 10** **Print(type(X//Y))** class 'int'> Write the output of the above program	2	2
6	Consider the following program and predict the output: **I = (10,20,30,40)** → no change. **I[2] = 100** **print(I[2])**	2	3
7	Write a Python program that asks the user for their age. If the age is 18 or above, print "You are eligible to drive.", otherwise, print "You are not eligible to drive."	2	3
	SECTION-B		
8	Consider the list L = [12,80,11,22,53,18] and Design a Python Program to find and print the prime numbers in the list.	6	1
9	Implement a python program to Swap two numbers without using the third variable. **NOTE:** The two numbers must be taken as an input from the user	6	1
10	Define Lambda function. Write a Python program to check if a number is divisible by 7.	6	2
11	Design a python program to showcase the use of break and continue in a list. **NOTE:** Students can consider the list of their own choice	6	2
12	Compare Set and Dictionary with the help of suitable example.	6	3
13	Write a Python Program to solve the following equation and print the result. $$A = P\left(1 + \frac{r}{n}\right)^{nt}$$ Take the values of P, r, n and t as an input from the user	6	3

(7) int (input("enter no")) n = number [0] if

IILM University, Greater Noida
End Semester Examination (EVEN Semester- AY 2024-25)

Name:		Geetanshi Singh		
Enrolment No:		11718		
	Name of the School	School of Computer Science and Engineering	**Name of the Department**	ML-DS
	Name of the Program	B. Tech CSE	**Course Code/ Course Name/ Name of the faculty**	UCS-2003/Python Programming, Mr. Namit & Mr. Harun
	Session	2024-25	**Branch, Year & Semester**	CSE, 1st yr, 2nd Sem
	Time/Max Marks	3 Hours/100	**Set**	B

Note:
1) Attempt all sections (A, B & C).
2) Attempt all questions in section A & B.
3) Section C consists of 5 questions. One question from each unit. Questions may have internal choice from the same unit. Attempt all questions.

Q No.	QUESTIONS	MARKS	CO
	SECTION-A: Attempt all of the following questions in brief.		**(10x2=20)**
Q1(a)	Write short notes on list indexing and slicing with the help of an example.	2	1
(b)	Evaluate a = b*c+100 using python. Take the values of b and c as user input. Mention the output as well.	2	1
(c)	Explain the use of __init__() in python.	2	2
(d)	Explain how does floor value work in context of division in Python.	2	2
(e)	Define String in python. Discuss about their immutability.	2	3
(f)	Explain the difference between a Set and a dictionary with example.	2	3
(g)	Define Data Series in Pandas.	2	4
(h)	Define multiple-inheritance in Python.	2	4
(i)	Discuss the role of the continue statement using an example.	2	5
(j)	Compare built-in and user-defined functions using an example.	2	5
	SECTION-B: Attempt all questions.		**(5x6=30)**
Q2(a)	Implement a python program to showcase the use of class and objects.	6	1
(b)	Write a Python program to find the smallest of three numbers using if-else.	6	2
(c)	Write a program to read a file and display the contents of a file 5 times.	6	3
(d)	Design a program to check if a number is prime or not. Take the number from user as input.	6	4
(e)	Explain abstraction in python with the help of an example.	6	5

	SECTION-C: Attempt all questions. Attempt any one part of each question.		(5x10=50)
Q3(a)	Write a program in python to find all the Armstrong numbers in a given list. lst = [254, 153, 315, 370, 450]	10	1
	OR		
Q3(b)	Design a Python program find the minimum of a list of numbers.		
Q4(a)	Implement a python program to showcase the following operations in a file i) Create a file. ii) Read contents of a file. iii) Write contents into the file. iv) Append content into the file.	10	2
	OR		
Q4(b)	Compare various access modifiers in python. Showcase the use of access modifiers with the help of a program.		
Q5(a)	Explain the use of user defined methods in programming. Design a program that contains default argument in a defined method.	10	3
	OR		
Q5(b)	Implement the following concepts for a python program: i) Create a class named IILMUniversity. ii) Design methods like admissions(), management() and engineering(). iii) Call these methods using instance of IILMUniversity class.		
Q6(a)	Compare class variables versus method variables. Also discuss them in context of scope. Showcase how class variables and method variables can be used in a program.	10	4
	OR		
Q6(b)	Define Pandas and Numpy modules in python. Explain the use cases of both modules with the help of sample programs.		
Q7(a)	Explain the following terms: i) Matplotlib ii) Lambda function iii) Public vs protected variable iv) Immutability v) Set	10	5
	OR		
Q7(b)	Design a python program to print the following pattern. **** *** ** *		