



**SILVER OAK  
UNIVERSITY**  
EDUCATION TO INNOVATION

**Silver Oak University**  
**Silver Oak College of Computer Application**  
**Bachelor of Computer Application**

<b>Semester :</b>	3	<b>Academic Year :</b>	2024-25
<b>Subject Name :</b>	Python Development	<b>Subject Code :</b>	3040243202

**Question Bank**

<b>Sr. No.</b>	<b>Question Text</b>	<b>Marks</b>	<b>CO</b>
<b>1 : Overview of Python, Programming languages</b>			
1	What is Python?	2	CO-1
2	Describe the history and evolution of Python.	3	
3	List 5 major features of Python and their benefits	4	CO-1
4	How to comment specific line(s) in Python program?	3	CO-1
5	What are the differences between C and Python?	4	CO-1
6	What is the difference between == and is operator in Python?	3	CO-1
7	Explain in operator in Python with an example.	5	CO-1
8	Explain different types of comments in python	3	CO-1
9	What is indentation in Python?	2	CO-1
10	Write a program to print the sum of 2 user-input numbers.	3	CO-1
11	Differentiate between variables and constants in Python.	4	CO-1

12	Compare and contrast arithmetic, comparison, and logical operators in Python.	5	CO-1
13	Demonstrate user input and output in Python.	5	CO-1
14	Explain implicit and explicit type conversion in Python.	4	CO-1
15	Write a program to calculate the area of a triangle using user inputs.	5	CO-1
16	Explain the structure of for loop in python with suitable example.	4	CO-1
17	Explain the syntax and functionality of the if_else statement with examples.	3	CO-1
18	How is the else statement used with the if statement?	2	CO-1
19	Write a program to check if a given number is even or odd.	3	CO-1
20	What is the purpose of the while loop in Python? Give an example.	4	CO-1
21	Write a program to print the first 10 natural numbers using a for loop.	5	CO-1
22	What is the use of the else and continue statements within loops?	4	CO-1
23	Explain how an if-elif-else statement works in Python. Write a Python code that checks if a number is positive, negative, or zero.	5	CO-1
24	Write a Python program that checks if a given year is a leap year or not.	3	CO-1
25	Differentiate between for and while loops in Python. Provide examples where each loop is more appropriate.	5	CO-1
26	Write a Python program to print the Fibonacci sequence up to n terms using a loop.	5	CO-1
27	Describe break, continue, pass statement with example	4	CO-1
28	Write a python program that finds the factorial of a natural number n.	5	CO-1
<b>2 : String ,List, Function</b>			
29	What is string slicing in Python?	2	CO-2
30	Explain string indexing and slicing.	4	CO-2
31	Describe following string functions with example: islower(), isupper(),replace(),find(),count()	5	CO-2
32	Provide an example to extract a substring from a given string.	3	CO-2

33	Demonstrate common string operations like concatenation, searching, and replacement.	5	CO-2
34	Explain how the <code>split()</code> , <code>capitalize()</code> and <code>join()</code> methods work in Python. Provide examples for each.	5	CO-2
35	“List is mutable.” - Justify with suitable example.	3	CO-2
36	How do you add, remove, and update elements in a Python list? Provide examples for each operation.		CO-2
37	Demonstrate creating, accessing, and modifying elements in a list.	4	CO-2
38	Define a function in Python and explain its scope and argument types	4	CO-2
39	How <code>append()</code> and <code>extend()</code> are different with reference to list in Python?	4	CO-2
40	Explain how the <code>pop()</code> , <code>remove()</code> , <code>reverse()</code> and <code>insert()</code> methods list work in Python. Provide examples for each.	5	CO-2
41	Discuss the scope and lifetime of variables in Python functions with examples.	5	CO-2
42	Explain the difference between return and void functions in Python. Provide examples.	4/5	CO-2
43	Explain the use of following built in function in python. <code>max()</code> , <code>pow()</code> , <code>str()</code> , <code>input()</code>	4/5	CO-2
44	What is the purpose of “def” keyword in python?	4	CO-2
45	Explain the conversion of tuple to list in python.	4	CO-2
46	Write Python Program to Prompt for a Marks in the range of 0 to 100. If the entered mark is out of range, it should print an error. If the entered marks is between 0 and 100, print a grade using following information: Marks $\geq$ 70 Grade A $60 \leq$ Marks < 70 Grade B $50 \leq$ Marks < 60 Grade C $40 \leq$ Marks < 50 Grade D Marks < 40 Grade FF	5	CO-2
47	Write Python code to find and print first n- Fibonacci numbers	4	CO-2
48	Describe range function with example.	4	CO-2
49	Describe user defined function in python	4	CO-2
<b>3 : Tuples and Sets, Dictionary</b>			

50	How are tuples created in Python? Explain with an example.	3	CO-3
51	Explain any three basic operations that can be performed on a tuple with examples.	3	CO-3
52	What are sets in Python? How do you create a set?	3	CO-3
53	Give comparison between Tuple and List in python	4	CO-3
54	Given a tuple (10, 20, 30, 40), write a Python code to unpack the elements into four variables.	4	CO-3
55	Define key-value pairs in a dictionary and demonstrate access and modification.	3	CO-3
56	Differentiate between lists and dictionaries.	3	CO-3
57	Explain sets in Python and their unique properties.	4	CO-3
58	Differentiate between sets and dictionaries.	3	CO-3
59	Differentiate List and Tuple in Python.	3	CO-3
60	<p>Consider the list lst=[9,8,7,6,5,4,3]. Write the Python program which performs the following operation without using built-in methods.</p> <p>1) Insert element 10 at beginning of the list.</p> <p>2) Insert element 2 at end of the list.</p> <p>3) Delete the element at index position 5.</p> <p>What is dictionary in Python? Explain with an example.</p>	5	CO-3
61	Describe any four common set methods with examples.	4	CO-3
62	Create a set fruit_set with the values {"apple", "banana", "cherry"}. Add the value "date" to fruit_set. Print the updated fruit_set. Remove the value "banana" from fruit_set. Print the modified fruit_set.	5	CO-3
63	<p>Create a tuple fruit_tuple with the values ("apple", "banana", "cherry"). Access and print the second element of fruit_tuple using indexing. Extract and print the substring containing "banana" and "cherry" using slicing.</p> <p>Create another tuple more_fruits with the values ("date", "elderberry"). Concatenate fruit_tuple and more_fruits into a new tuple all_fruits and print it. Use the len() function to print the number of elements in all_fruits.</p>	5	CO-3

64	Create a dictionary named person_info with the following keys: "name", "age", "occupation", and "hobbies".Populate the dictionary with values of your choice. "hobbies" should be a list of at least three hobbies. Print the person_info dictionary. Access and print the value associated with the "occupation" key. Update the "age" value to a new age and print the updated dictionary. Add a new key-value pair "email" with a value of your choice to the dictionary and print the updated dictionary.	5	CO-3
65	Create a dictionary named product_prices with at least four key-value pairs where the keys are product names (strings) and the values are their prices (floats). Print the product_prices dictionary. Increase the price of each product by 5% using a for loop and update the dictionary accordingly. Print the updated dictionary with the new prices. Use the .get() method to safely access the price of a specific product of your choice and print it.	5	CO-3
66	Discuss the relationship between tuples and dictionaries with examples.	5	CO-3
67	Describe dictionary example in python. How to access individual members?	3	CO-3
<b>4 : File Handling</b>			
68	Explain the concept of file handling in Python.	3	CO-4
69	Demonstrate opening, reading, writing, and closing files in Python.	4	CO-4
70	What is the purpose of the with statement in file handling?	3	CO-4
71	Explain Python modules and how to import them into your code.	4	CO-4
72	Explain modulo operator in python with the help of suitable example.	4	CO-4
73	Explain different mode for opening a file in python	5	CO-4
74	What is the Pickle module used for in Python?	5	CO-4
75	How do you read and write binary files in Python?	4/5	CO-4
76	What are the primary differences between text files and binary files?	4	CO-4
77	How do you create a new text file and write data to it in Python?	3	CO-4
78	What methods can be used to read the contents of a text file?	4	CO-4
79	Which Python methods are commonly used for writing data to a file?	3	CO-4
80	Which Python methods are commonly used for writing data to a file?	4	CO-4
81	How do you read a CSV file into a list of dictionaries using Python?	5	CO-4

