Class XI Computer Science Practical

S	Unit Name	Marks
1.	**Lab Test (12 marks)**	
	Python program (60% logic + 20% documentation + 20% code quality)	**8**
	SQL program (at least 4 queries)	**4**
2.	**Report File + viva (10 marks)**	
	Report file: Minimum 20 Python programs and 8 SQL commands	**7**
	Viva voce (based on the report file)	**3**
3.	Project (that uses most of the concepts that have been learnt)	**8**

1. **Programming in Python:** At least the following Python concepts should be covered in the lab sessions: expressions, conditionals, loops, list, dictionary, and strings. The following are some representative lab assignments.

- Find the largest and smallest numbers in a list.

- Find the third largest number in a list.

- Test for primarily.

- Find whether a string is a palindrome or not.

- Given two integers x and n, compute x^n.

- Compute the greatest common divisor and the least common multiple of two integers.

- Test if a number is equal to the sum of the cubes of its digits. Find the smallest and largest such numbers.

2. **Data Management: SQL Commands** At least the following SQL commands should be coveredduring the labs: create, insert, delete, select, and join. The following are some representative assignments.

- Create a student table with the student id, name, and marks as attributes where the student idis the primary key.

- Insert the details of a new student in the above table.

- Delete the details of a particular student in the above table.

- Use the select command to get the details of the students with marks more than 80.

- Create a new table (name, date of birth) by joining two tables (student id, name) and (studentid, date of birth).

- Create a new table (order ID, customer Name, and order Date) by joining two tables (order ID, customer ID,and order Date) and (customer ID, customer Name, contact Name, country).