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| | Atal Bihari Vajpayee Govt Institute of Engineering & Technology |
| | **DEPARTMENT OF COMPUTER ENGINEERING** |
| | LESSON PLAN (Practical Course) |

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| Program Name | **Diploma in Computer Engineering** | Academic Year | **Jan. - Jun. 2026** |
| Course Title | **Scripting Language Lab** | Scheme | **N - 2022** |
| Course Code | **COPC - 304** | Semester | **6th** |
| Course Type | **Program Core** | Semester Start Date | **27-01-2026** |
| Course Teacher | **Rajesh Kumar** | Semester End Date | **27-05-2026** |

**EVALUATION SCHEME**

| Study Hours | Internal Assessment Marks | External Assessment | | Total Marks | No. of Credits |
|---|---|---|---|---|---|
| | | Marks | Duration | | |
| **P:02, DCS: 02 = 04 Hrs.** | **40** | **60** | **3 Hrs.** | **100** | **01** |

**REFERENCE BOOKS / STUDY MATERIAL**

1. Computer Science text book for class XI, NCERT.
2. Python Programming Using Problem Solving Approach by Reema Thareja, Oxford University Press.
3. Introduction to Computer Science using Python by Charles Dierbach, Wiley Publishers.
4. Let's Python by Yashavant Kanetkar, BPB publication.
5. The Complete Reference Python by Martin C. Brown, Mc Graw Hill publication.

**COURSE OUTCOMES(COs)**

| On the successful completion of this course, students will be able to:- | |
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| CO1 | Write and execute simple 'Python' programs. |
| CO2 | Write 'Python' programs using arithmetic expressions and control structure. |
| CO3 | Develop "Python' programs using List, Tuple, Set and Dictionary. |
| CO4 | Develop/Use functions in Python programs for modular programming approach. |
| CO5 | Develop 'Python' programs using File Input/output operations. |

**EXPERIMENTAL PERFORMANCE PLAN**

| SN | Practical Name | Group - 1 | | Group - 2 | | Remark(s) |
|---|---|---|---|---|---|---|
| | | Proposed Date (as per Time Table) | Actual Date | Proposed Date (as per Time Table) | Actual Date | |
| 1 | To install, configure Python 3 and IDLE on Windows/ Linux platforms, and to practice various arithmetic expressions, the eval() function on the Python interactive shell. | 29/01/2026 | | 28/01/2026 | | |
| 2 | To create variables of various data types, check their id using id() function and to verify their data types using the type() function. | 05/02/2026 | | 04/02/2026 | | |

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| 3 | To swap values of two variables with and without a third variable. (use input() to accept values from user and print() to display values before and after swapping) | 12/02/2026 | | 11/02/2026 | | |
| 4 | To accept two numbers from the user and apply various Python operators on them. | 19/02/2026 | | 18/02/2026 | | |
| 5 | To apply concatenation, repetition, membership testing, indexing and slicing on sequences (strings, lists and tuples). | 26/02/2026 | | 25/02/2026 | | |
| 6 | To practice various methods and the len() function on string and list. | 05/03/2026 | | 09/03/2026 | | |
| 7 | To practice various methods and the len() function on tuple, set and dictionary | 12/03/2026 | | 16/03/2026 | | |
| 8 | To calculate the division obtained by a student using the if...elif...else construct as per following rules:<br><br>Input percentage is above or equal to 60 - First division<br>Input percentage is between 50 and 59 - Second division<br>Input percentage is between 40 and 49 - Third division<br>Input percentage is less than 40 - Fail | 19/03/2026 | | 23/03/2026 | | |
| 9 | Using while loop<br>1. To find whether the number entered by a user is prime or not.<br>2. To convert a decimal number entered by the user to its binary equivalent.<br>3. To print all the fibonacci numbers less than 200 separated by a space. | 27/03/2026 | | 30/03/2026 | | |

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| 10 | Using for loop<br>1. To find the factorial of a given number.<br><br>2. To print all the even numbers (except 50), between 0 and 100, separated by a TAB, using the range() function and the continue statement.<br><br>3. To display all the prime numbers less than 100, separated by single space, using the range() function and the break statement. | 09/04/2026 | | 06/04/2026 | | |
| 11 | Using a while/for loop<br>1. To traverse a string.<br>2. To traverse a list.<br>3. To traverse a dictionary | 16/04/2026 | | 13/04/2026 | | |
| 12 | To demonstrate the exception handling mechanism of Python. | 23/04/2026 | | 20/04/2026 | | |
| 13 | To find the sum of two integers using :<br>1. a function that accepts nothing and returns nothing.<br><br>2. a function that accepts nothing but returns the sum of two integers.<br><br>3. a function that accepts two integers but returns nothing.<br><br>4. a function that accepts two integers and returns the sum of two integers. | 30/04/2026 | | 27/04/2026 | | |
| 14 | To demonstrate lambda function. | 08/05/2026 | | 04/05/2026 | | |
| 15 | To copy the contents of one file into another. | 14/05/2026 | | 11/05/2026 | | |

**Faculty Signature:** _____

**Faculty Name**: Rajesh Kumar

Approved By:

**HoD Signature:** _____

**HoD Name:** Sandeep Khimta