

|   |                               |          |          |          |          |
|---|-------------------------------|----------|----------|----------|----------|
| <b>Course Code</b>  | <b>PYTHON PROGRAMMING LAB</b> | <b>L</b> | <b>T</b> | <b>P</b> | <b>C</b> |
| <b>23CS1008</b>   |                               | 0        | 0        | 3        | 1.5      |
| <b>Course Objectives:</b>   |                               |          |          |          |          |
| Enable the student to   |                               |          |          |          |          |
| 1. understand the basics of python programming concepts   |                               |          |          |          |          |
| 2. apply the concepts of conditional statements, looping, control Statements, List, and dictionaries. |                               |          |          |          |          |
| 3. develop programs using object-oriented features, graphical user interfaces and image processing    |                               |          |          |          |          |
| <b>Course Outcomes:</b>   |                               |          |          |          |          |
| The student will be able to   |                               |          |          |          |          |
| 1. write, test, and debug python programs.  |                               |          |          |          |          |
| 2. implement conditional and looping statements for python programs                                   |                               |          |          |          |          |
| 3. apply functions and represent data using lists, set, tuples, and dictionaries.                     |                               |          |          |          |          |
| 4. illustrate file I/O Operations in python program.  |                               |          |          |          |          |
| 5. develop applications using classes and objects   |                               |          |          |          |          |
| 6. construct applications with graphical user interface   |                               |          |          |          |          |
| 1. Time complexity  |                               |          |          |          |          |
| 2. Use of Control Statements in Python  |                               |          |          |          |          |
| 3. List, Set & Tuple Manipulation   |                               |          |          |          |          |
| 4. Dictionary Manipulation  |                               |          |          |          |          |
| 5. Creating User Defined Functions  |                               |          |          |          |          |
| 6. File Handling based Applications   |                               |          |          |          |          |
| 7. Text processing using string functions   |                               |          |          |          |          |
| 8. Design applications using classes and Objects  |                               |          |          |          |          |
| 9. Creating applications using Inheritance  |                               |          |          |          |          |
| 10. Graphics design using turtle and Image Processing   |                               |          |          |          |          |
| 11. Graphical User Interface (GUI) application development  |                               |          |          |          |          |
| 12. Accessing a database in a python applicationCreating a Chat Application                           |                               |          |          |          |          |
| Exercises from the above list will be approved by the HoD during the start of the semester.           |                               |          |          |          |          |
|   |                               |          |          |          |          |
| <b>Recommended by Board of Studies</b>  |                               |          |          |          |          |
| <b>Approved by Academic Council</b>   |                               |          |          |          |          |
| <b>List of Exercises</b>  |                               |          |          |          |          |