**Lesson Plan**

**Name of Faculty : Er. Arushi Bansal, Guest Faculty of CSE**

**Discipline : Computer Science and Engineering**

**Semester : 5th (odd)**

**Subject : Python programming (PCC-CSE302-T)**

**Lesson Plan Duration : August to December-2022**

**Work Load (Lecture/Practical) per week (in hours): Lectures-03hours**

| **Week** | **Theory** | | **Topic Covered Date and Remarks** | | |
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| **Lecture Day** | **Topic (Including Assignment/Test)** | **Date** | **HOD** | **Director-Principal** |
| 1st | 1 | History, features of python |  |  |  |
| 2 | Identifiers, character set, keywords, indentation |  |  |  |
| 3 | Comments, command line arguments, assignment operators |  |  |  |
| 2nd | 4 | Functions, data types |  |  |  |
| 5 | Variables, decision statement |  |  |  |
| 6 | Nested conditional statement, multiway decision statement |  |  |  |
| 3rd | 7 | Revision of unit 1 |  |  |  |
| 8 | Loop control statements, while, for, nested, infinite |  |  |  |
| 9 | Range() , break, continue, pass |  |  |  |
| 4th | 10 | Strings, operations |  |  |  |
| 11 | Lists, operations |  |  |  |
| 12 | Searching , sorting |  |  |  |
| 5th | 13 | Dictionaries, operations |  |  |  |
| 14 | Tuples, operations |  |  |  |
| 15 | Sets, operations |  |  |  |
| 6th | 16 | Functions |  |  |  |
| 17 | Parameter passing |  |  |  |
| 18 | Recursion, lamda function |  |  |  |
| 7th | 19 | Modules, packages |  |  |  |
| 20 | Revision of unit 2 |  |  |  |
| 21 | Operations on files |  |  |  |
| 8th | 22 | Manipulating file pointer, appending to files |  |  |  |
| 23 | Python object oriented concepts |  |  |  |
| 24 | overloading |  |  |  |
| 9th | 25 | overlapping |  |  |  |
| 26 | Classes and methods |  |  |  |
| 27 | Exception handling |  |  |  |
| 10th | 28 | Revision of unit 3 |  |  |  |
| 29 | databases |  |  |  |
| 30 | DML and DDL operations |  |  |  |
| 11th | 31 | Data analysis |  |  |  |
| 32 | Creating , using, indexing arrays |  |  |  |
| 33 | Transposition, universal array function, array input output |  |  |  |
| 12th | 34 | pandas |  |  |  |
| 35 | Series, frames, panels |  |  |  |
| 36 | Index objects, re-indexing, iteration |  |  |  |
| 13th | 37 | Sorting |  |  |  |
| 38 | Data visualisation |  |  |  |
| 39 | Revision of unit 4 |  |  |  |