**NAME OF THE FACULTY** : HIMANSHU YADAV

**DISCIPLINE** : ECE

**SEMESTER** : 3 rd

**SUBJECT** : Programming in C

**LESSON PLAN DURATION** : - 15 weeks (from 04Aug 2025 to 26 NOV 2025)

WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):- LECTURE-**03**, PRACTIACL-**08** PER GROUP

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WEEK** | **THEORY** | | **PRACTICAL** | | |
| **Lecture**  **/ Hrs** | **TOPIC**  **(Including Assignment/Test)** | **Practical**  **/ Hrs** | | **Experiment** |
| 1st | 1 | IntroductionAlgorithm and Programming Development | Group-1 | 1 | Programming exercises on executing and editing a C program. |
| 2 |
| 2 | Steps in development of a program | 3 |
| 4 |
| Group-2 | 1 | Programming exercises on executing and editing a C program. |
| 3 | Introduction to Flow charts, Algorithm development | 2 |
| 3 |
| 4 |
| 2nd | 4 | Introduction to Programme Debugging | Group-1 | 1 | Programming exercises on defining variables and assigning values to variables. |
| 2 |
| 5 | Programme Debugging | 3 |
| 4 |
| Group-2 | 1 | Programming exercises on defining variables and assigning values to variables. |
| 6 | I/O statements, Assign statements | 2 |
| 3 |
| 4 |
| 3rd | 7 | Constants, variables | Group-1 | 1 | Programming exercises on arithmetic and relational operators. |
| 2 |
| 8 | Data Types | 3 |
| 4 |
| Group-2 | 1 | Programming exercises on arithmetic and relational operators. |
| 9 | Operators, Expressions | 2 |
| 3 |
| 4 |
| 4th | 10 | Standards IO statements | Group-1 | 1 | Programming exercises on arithmetic expressions and their evaluation. |
| 2 |
| 11 | Formatted IO statements | 3 |
| 4 |
| Group-2 | 1 | Programming exercises on arithmetic expressions and their evaluation. |
| 12 | Data Type Casting, Introduction to Control Structures | 2 |
| 3 |
| 4 |
| 5th | 13 | **Assignment-1** |  | 1 | Programming exercises on formatting input/output using printf() and scanf() and their return type values. |
| 2 |
| 14 | **Sessional Test-1** | 3 |
| 4 |
| Group-2 | 1 | Programming exercises on formatting input/output using printf() and scanf() and their return type values. |
| 15 | Decision making with IF – statement | 2 |
| 3 |
| 4 |
| 6th | 16 | IF – Else | Group-1 | 1 | Programming exercises using if statement. |
| 2 |
| 17 | Nested IF | 3 |
| 4 |
| Group-2 | 1 | Programming exercises using if statement. |
| 18 | Introduction to loops, While and do-while, for loop | 2 |
| 3 |
| 4 |
| 7th | 19 | While and do-while, for loop | Group-1 | 1 | Programming exercises using if – Else. |
| 2 |
| 20 | Break, Continue, go to statements | 3 |
| 4 |
| Group-2 | 1 | Programming exercises using if – Else. |
| 21 | Break, Continue, go to statements, Switch statements | 2 |
| 3 |
| 4 |
| 8th | 22 | Introduction to Pointers | Group-1 | 1 | Programming exercises on switch statement. |
| 2 |
| 23 | Address operator and pointers | 3 |
| 4 |
| Group-2 | 1 | Programming exercises on switch statement. |
| 24 | Declaring and Initializing pointers | 2 |
| 3 |
| 4 |
| 9th | 25 | Declaring and Initializing pointers | Group-1 | 1 | Programming exercises on do – while, statement. |
| 2 |
| 26 | Single pointer | 3 |
| 4 |
| Group-2 | 1 | Programming exercises on do – while, statement. |
| 27 | Introduction to functions | 2 |
| 3 |
|  | 4 |
| 10th | 28 | **Assignment-2** | Group-1 | 1 | Programming exercises on for – statement. |
| 2 |
| 29 | **Sessional Test-2** | 3 |
| 4 |
| Group-2 | 1 | Programming exercises on for – statement. |
| 30 | Global and Local Variables | 2 |
| 3 |
| 4 |
| 11th | 31 | Global and Local Variables | Group-1 | 1 | Programs on one-dimensional array. |
| 2 |
| 32 | Function Declaration | 3 |
| 4 |
| Group-2 | 1 | Programs on one-dimensional array. |
| 33 | Standard functions | 2 |
| 3 |
| 4 |
| 12th | 34 | Parameter Passing | Group-1 | 1 | Programs on two-dimensional array. |
| 2 |
| 35 | Call - by value and Call - by reference | 3 |
| 4 |
| Group-2 | 1 | Programs on two-dimensional array. |
| 36 | Introduction to Arrays  Array Declaration, Length of array | 2 |
| 3 |
| 4 |
| 13th | 37 | Single Array, Multidimensional Array, Arrays of characters (string), Pointers to an array | Group-1 | 1 | (i) Programs for putting two strings together.  (ii) Programs for comparing two strings. |
| 2 |
| 38 | Passing an array to function | 3 |
| 4 |
| Group-2 | 1 | (i) Programs for putting two strings together.  (ii) Programs for comparing two strings. |
| 39 | Structure and Union | 2 |
| 3 |
| 4 |
| 14th | 40 | Declaration of structure and union | Group-1 | 1 | Simple programs using structures. |
| 2 |
| 41 | File handling | 3 |
| 4 |
|  | 1 | Simple programs using structures. |
| 42 | File handling | 2 |
| 3 |
| 4 |
| 15th | 43 | **Assignment- 3** | Group-1 | 1 | Simple programs using pointers. |
| 2 |
| 44 | **Sessional Test- 3** | 3 |
| 4 |
| Group-2 | 1 | Simple programs using pointers. |
| 45 | Revision | 2 |
| 3 |
| 4 |