**NAME OF THE FACULTY** : Mr. Himanshu Yadav

**DISCIPLINE** : ECE

**SEMESTER** : 3 rd

**SUBJECT** : Computer Programming using C

**LESSON PLAN DURATION** : - 15 weeks (from Oct 2021 to Jan 2022)

WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):- LECTURE-**04**, PRACTIACL-**03** PER GROUP

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| **WEEK S.N.** | **THEORY** | **PRACTICAL** |
| **Lecture****/ Hrs** | **TOPIC****(Including Assignment/Test)** | **Practical****/ Hrs** | **Experiment** |
| 1st | 1 | **Introduction** Algorithm and Programming Development | Group-1 | 1 | Programming exercises on executing and editing a C program. |
| 2 |
| 2 | Steps in development of a program | 3 |
| Group-2 | 1 | Programming exercises on executing and editing a C program. |
| 3 | Introduction to Flow charts | 2 |
| 4 | Algorithm development | 3 |
| 2nd | 5 | Introduction to Programme Debugging | Group-1 | 1 | Programming exercises on defining variables and assigning values to variables. |
| 2 |
| 6 | Programme Debugging | 3 |
| Group-2 | 1 | Programming exercises on defining variables and assigning values to variables. |
| 7 | I/O statements | 2 |
| 8 | Assign statements | 3 |
| 3rd | 9 | Constants, variables | Group-1 | 1 | Programming exercises on arithmetic and relational operators. |
| 2 |
| 10 | Data Types | 3 |
| Group-2 | 1 | Programming exercises on arithmetic and relational operators. |
| 11 | Operators | 2 |
| 12 | Expressions | 3 |
| 4th | 13 | Standards IO statements | Group-1 | 1 | Programming exercises on arithmetic expressions and their evaluation. |
| 2 |
| 14 | Formatted IO statements | 3 |
| Group-2 | 1 | Programming exercises on arithmetic expressions and their evaluation. |
| 15 | Data Type Casting | 2 |
| 16 | Introduction to Control Structures | 3 |
| 5th | 17 | **Assignment-1** | Group-1 | 1 | Programming exercises on formatting input/output using printf() and scanf() and their return type values. |
| 2 |
| 18 | **Sessional Test-1** | 3 |
| Group-2 | 1 | Programming exercises on formatting input/output using printf() and scanf() and their return type values. |
| 19 | Decision making with IF – statement | 2 |
| 20 | Decision making with IF – statement | 3 |

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| 6th | 21 | IF – Else | Group-1 | 1 | Programming exercises using if statement. |
| 2 |
| 22 | Nested IF | 3 |
| Group-2 | 1 | Programming exercises using if statement. |
| 23 | Introduction to loops | 2 |
| 24 | While and do-while, for loop | 3 |
| 7th | 25 | While and do-while, for loop | Group-1 | 1 | Programming exercises using if– Else. |
| 2 |
| 26 | Break, Continue, go to statements | 3 |
| Group-2 | 1 | Programming exercises using if– Else. |
| 27 | Break, Continue, go to statements | 2 |
| 28 | Switch statements | 3 |
| 8th | 29 | Introduction to Pointers | Group-1 | 1 | Programming exercises on switch statement. |
| 2 |
| 30 | Pointers | 3 |
| Group-2 | 1 | Programming exercises on switch statement. |
| 31 | Address operator and pointers | 2 |
| 32 | Declaring and Initializing pointers | 3 |
| 9th | 33 | Declaring and Initializing pointers | Group-1 | 1 | Programming exercises on do – while, statement. |
| 2 |
| 34 | Single pointer | 3 |
| Group-2 | 1 | Programming exercises on do – while, statement. |
| 35 | Revision Pointers | 2 |
| 36 | Revision Pointers | 3 |
| 10th | 37 | Introduction to functions | Group-1 | 1 | Programming exercises on for – statement. |
| 2 |
| 38 | **Assignment-2** | 3 |
| Group-2 | 1 | Programming exercises on for – statement. |
| 39 | **Sessional Test-2** | 2 |
| 40 | Introduction to functions | 3 |
| 11th | 41 | Global and Local Variables | Group-1 | 1 | Programs on one-dimensional array. |
| 2 |
| 42 | Global and Local Variables | 3 |
| Group-2 | 1 | Programs on one-dimensional array. |
| 43 | Function Declaration | 2 |
| 44 | Function Declaration | 3 |

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| 12th | 45 | Standard functions | Group-1 | 1 | Programs on two-dimensional array. |
| 2 |
| 46 | Standard functions | 3 |
| Group-2 | 1 | Programs on two-dimensional array. |
| 47 | Parameters | 2 |
| 48 | Parameter Passing | 3 |
| 13th | 49 | Call - by value | Group-1 | 1 | 1. Programs for putting two strings together.
2. Programs for comparing two strings.
 |
| 2 |
| 50 | Call - by reference | 3 |
| Group-2 | 1 | 1. Programs for putting two strings together.
2. Programs for comparing two strings.
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| 51 | Introduction to Arrays | 2 |
| 52 | Array Declaration, Length of array | 3 |
| 14th | 53 | Single Array | Group-1 | 1 | Simple programs using structures. |
| 2 |
| 54 | Multidimensional Array | 3 |
| Group-2 | 1 | Simple programs using structures. |
| 55 | Arrays of characters | 2 |
| 56 | Passing an array to function | 3 |
| 15th | 57 | Pointers to an array | Group-1 | 1 | Simple programs using pointers. |
| 2 |
| 58 | **Assignment- 3** | 3 |
| Group-2 | 1 | Simple programs using pointers. |
| 59 | **Sessional Test- 3** | 2 |
| 60 | Revision | 3 |