**Lesson Plan (Odd Semester)**

**Name of the Faculty : Poonam Kumari**

# Department : Computer Engg.

**Semester : 3rd**

# Subject : Programming in C

| **Week** | **Theory** | | | | **Practical** | |
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| **Lecture** |  |  | **Topic** | **Practical** | **Topic** |
| **day** |  | **(Including assignment / test)** | | **Day** |
| 1st | 1st | Algorithm and Programming | | | 1st | Programming exercises on executing and editing |
| Development: Introduction | | |
| a C program |
| 2nd | Steps in development of a program | | |
| 3rd | Flow charts, Algorithm development | | | 2nd | Programming exercises on executing and editing |
|  |  | | | a C program |
| 2nd | 4th | Algorithm and Flowchart writing for practical | | | 3rd |  |
| . |  |  | Programming exercises on executing and editing |
| 5th | Algorithm and Flowchart writing for practical | | | a C program |
| . |  |  |  |
| 6th | Practice of error detection and corrections in | | | 4th |  |
| examples. | |  | Programming exercises on executing and editing |
|  | Program Structure : Introduction to | | | a C program |
| structure of C program | | |  |
| 3rd | 7th | Keywords, assign statements | | | 5th | Programming exercises on executing and editing |
| 8th | I/O statements:Printf and Scanf | | | a C program |
| 9th | Constants, variables and data types | | | 6th | Programming exercises on defining variables |
|  | Operators and Expressions | | | and assigning values to variables |
| 4th | 10th | Unformatted and Formatted IOS | | | 7th | Programming exercises on arithmetic and |
| 11th | Data Type Casting | | | relational operators |
| 12th | Basic Program writing and practice | | | 8th | Programming exercises on arithmetic |
|  |  | | | expressions and their evaluation |
| 5th | 13th | Control Structures :Introduction and use | | | 9th | Programming exercises on formatting |
| 14th | Decision making with IF – statement | | | input/output using printf and scanf and their |
| 15th | Practice of IF statement with examples | | | 10th | Programming exercises using if statement, if – |
|  | IF – Else and Nested IF | | | Else |
| 6th | 16st | While and do-while, for loop | | | 11th | Programming exercises on do – while, |
| 17th | Loop Practice and revision | | |
| statement. |
| 18th | Break. Continue statements | | | 12th | Programming exercises on switch statement. |
|  |  | | |
| 7th | 19th | goto and switch statements | | | 13th | Programming exercises on for – statement |
| 20th | Practice of Control structures using examples. | | |
| 21th |  | | | 14th | Programming exercises on do – while, statement |
|  | Pointers :Introduction to pointers | | | and for statement |
| 8th | 22th | Address operator and pointers , Declaring and | | | 15th | Simple programs using pointers |
| initializing pointers | | |
| 23rd | Single pointer | |  |
| 24th | Revision of Unit IV | | | 16th | Simple programs using pointers |
|  | Practice of Pointers using examples and | | |
| 9th | 25th | Functions:Introduction to functions | | | 17th | Simple programs using functions |
| Global and Local Variables | | |
| 26th | Function Declaration, Standard functions | | |
| 27thth | Parameters and Parameter Passing | | | 18th | Simple programs using functions |
|  | Call - by value/reference | | |
| 10th | 28th | Revision of functions and Parameter Passing | | | 19th | Programs on one-dimensional array. |
| Programs on two-dimensional array. |
| 29th | Arrays | and Strings:Introduction to Arrays, | |
| Array Declaration, Length of array | | |  |
| 30th | Single and Multidimensional Array,Arrays of | | | 20th | Programs on one-dimensional array. |
| characters | |  | Programs on two-dimensional array. |
|  | Revision of Arrays and functions. | | |  |
| 11th | 31st . | Examples of programs and Practice of array and | | | 21st | (i) Programs for putting two strings together. |
| functions | |  |
| (ii) Programs for comparing two strings |
| 32 nd | Introduction of | | Strings: String declaration |
| and definition, String Related function i.e. | | |  |
| 33rd | Passing an array to function | | | 22nd | Programs on functions using array as parameters |

| **Week** | **Lecture** | **Topic** | | **Practical** | **Topic** |
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| **day** | **(Including assignment / test)** | | **Day** |
|  |  | Programming examples of array passing as | |  |  |
| argument to a function | |
| 12th | 34th | Revision of arrays and functions with examples | | 23rd | Programs on functions using array as parameters |
| 35th | Pointers to an array | and strings |
| 36th | Pointers to an array | and strings detailed | 24th | Programs on functions ,Strings and parameter |
|  | Class Test of Pointers and Functions | | passing by reference |
| 13th | 37th | Structures and Unions : Introduction | | 25th | Simple programs using structures |
| ,Declaration of structures | |
| 38th | Accessing structure members | |
| 39th | Structure Initialization | | 26th | Simple programs using structures |
|  | Pointer to a structures | |
| 14th | 40th | Unions: Introduction | | 27th | Simple programs using union |
| 41th | Difference between Structures and unions | |
| 42th | Program examples of structures and unions | | 28th | Simple programs using union |
|  |  | |
| 15th | 43rd | Revision of Pointers | | 29th | Programming exercises on do – while, statement |
| 44th | Revision of Loops and Control Structures. | | and for statement |
| 45th | Class Test of Loops, Pointers and Control | | 30th |  |
| Structures |  | Programming exercises on do – while, statement |
|  |  | | and for statement |

