**GOVT. POLYTECHNIC EDUCATION SOCIETY**

MORNI PANCHKULA

**LESSON PLAN**

NAME OF THE FACULTY: - Bijender Singh, Deepika, Manoj Kumar

DISCIPLINE: - Computer Engineering

SEMESTER: - 3rd

SUBJECT: - Programming in C

Lesson Plan Duration: - 15 weeks

Work Load (Lecture/Practical) per week (In hours): Lecture 03, Practical -06

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| **Week** | **Theory** | | **Practical** | |
| Lecture day | Topic  (including assignment / test) | Practical | Topic |
| 1st | 1st | Steps in development of a program | 1 | Programming exercises on executing and editing a C program |
| 2nd | Flow charts |
| 3rd | Algorithm development, Programme Debugging |
| 2nd | 4th | I/O statements, assign statements | 2 | Programming exercises on defining variables and assigning values to variables. |
| 5th | Constants, variables and data types |
| 6th | Operators and Expressions |
| 3rd | 7th | Revision | 3 | Programming exercises on arithmetic and relational operators. |
| 8th | Unformatted and Formatted IOS |
| 9th | Unformatted and Formatted IOS |
| 4th | 10th | Data Type Casting | 4 | Programming exercises on arithmetic expressions and their evaluation. |
| 11th | Revision |
| 12th | Introduction to Control Structures |
| 5th | 13th | Decision making with IF – statement | 5 | Programming exercises on formatting input/output using printf and scanf and their return type values |
| 14th | IF – Else and Nested IF |
| 15th | While and do-while, for loop |
| 6th | 16th | While and do-while, for loop | 6 & 7 | Programming exercises using if statement.  Programming exercises using if – Else. |
| 17th | Break. Continue, goto |
| 18th | switch statements |
| 7th | 19th | Introduction to pointers | 8 | Programming exercises on |

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| **Week** | **Theory** | | **Practical** | |
| Lecture day | Topic  (including assignment / test) | Practical Day | Topic |
| 20th | Address operator and pointers | switch statement. |
| 21st | Declaring and initializing pointers, |  |
| 8th | 22nd | Single pointer, | 9 | Programming exercises on do – while, statement. |
| 23rd | Revision |
| 24th | Revision |
| 9th | 25th | Introduction to functions | 10 | Programming exercises on for – statement. |
| 26th | Global and Local Variables |
| 27th | Function Declaration Standard functions |
| 10th | 28th | Parameters and Parameter Passing | 11 | Simple programs using pointers. |
| 29th | Call - by value/reference |
| 30th | Revision |
| 11th | 31st | Array Declaration, Length of array Single and Multidimensional Array. | 12 & 13 | Programs on one-dimensional array.  Programs on two-dimensional array. |
| 32nd | Arrays of characters |
| 33rd | Revision |
| 12th | 34th | Introduction of Strings | 14 | 1. Programs for putting two strings together. 2. Programs for comparing two strings. |
| 35th | String declaration and definition |
| 36th | Revision |
| 13th | 37th | String Related function i.e. strlen,  strcpy, strcmp | 15 | Simple programs using functions |
| 38th | Passing an array to function |
| 39th | Pointers to an array and strings. |
| 14th | 40th | Revision | 16 | Simple programs using structures. |
| 41st | Declaration of structures Accessing structure members |
| 42nd | Structure Initialization |
| 15th | 43rd | Pointer to a structures, Unions | 17 | Simple programs using union. |
| 44th | Revision |
| 45th | Revision |