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| **Lesson Plan Duration : Aug. 2025 –Nov. 2025 work Load (Lecture/ Practical) per week (in hours): 3 HOURS (Theory) + 04 HOURS ( 02 Hours\*2 Groups) (PRACTICAL)**  **Name of the Faculty: Sh. Atul Kumar Discipline : Electronics and Communication Engg. Subject: PIC Semester : IIIrd** | | | | | | | |
| **Week** | **Theory** | | **Practical** | **Week** | **Theory** | | **Practical** |
| **Lecture day** | **Topic (including assignment/ test)** | **Topic** | **Lecture day** | **Topic (including assignment/ test)** | **Topic** |
| **1st** | **1** | **UNIT I**  **Basics of C Programming**  Steps in development of a program, Flow charts, Algorithm development  Programme Debugging, I/O statements, Constants, variables and data types  Operators & Expressions, Unformatted and Formatted IOS, Data Type Casting | Programming exercises on executing and editing a C program.  Programming exercises on defining variables and assigning values to variables. | **8th** | **22** | Accessing structure members | Programming exercises on switch statement.  Programming exercises on do – while, statement. |
| **2** | Decision making with IF – statement, IF – Else and Nested IF  While and do-while, for loop, Break. Continue, goto and switch statements | **23** | Structure Initialization |
| **3** | Revision of chapter 1 | **24** | Pointer to a structures |
| **2nd** | **4** | **UNIT II**  **Pointers and Functions**  Introduction to pointers | Programming exercises on arithmetic and relational operators. | **9th** | **25** | Unions | Programming exercises on for statement.  Simple programs using pointers. |
| **5** | Address operator and pointers | **26** | Assignment 2 |
| **6** | Declaring and initializing pointers | **27** | **2nd sessional test** |
| **3rd** | **7** | Single pointer,  Introduction to functions | VIVA-VOICE | **10th** | **28** | Unit 5. File Handling  Introduction to file handling in c | Programs on one-dimensional array.  Programs on two-dimensional array. |
| **8** | Function Declaration | **29** | Opening of file in c |
| **9** | function calling, function definition | **30** | Closing of file in c |
| **4th** | **10** | Parameter Passing, Call - by value/reference | Programming exercises on arithmetic expressions and their evaluation. | **11th** | **31** | Modes of accessing files | VIVA-VOICE |
| **11** | Global and Local Variables | **32** | Reading from a file |
| **12** | Assignment 1 | **33** | Writing to a file |
| **5th** | **13** | Revision of chapter 1 | Programming exercises on formatting input/output using print f and scan f and their return type values. | **12th** | **34** | Introduction to binary files in c | Programs for putting two strings together. (ii) Programs for comparing two strings.  Simple programs using functions |
| **14** | Revision of chapter 2 | **35** | Opening & closing binary file in c |
| **15** | **1st sessional test** | **36** | Modes of accessing binary files |
| **6th** | **16** | **UNIT III**  **Arrays and Strings**  3.1 Introduction to Arrays | VIVA-VOICE | **13th** | **37** | Reading from & writing to binary files in c | Simple programs using structures.  Simple programs using union.  Program on Reading and Writing data to a file. |
| **17** | 3.2 Array Declaration, Length of array  3.3 Single and muti dimensional array | **38** | Assignment 3 |
| **18** | 3.4 Arrays of characters  3.5 Introduction of Strings | **39** | **3rd sessional test** |
| **7th** | **19** | 3.6 String declaration and definition  3.7 String related function i.e. strlen, strcpy, strcmp | Programming exercises using if statement.  Programming exercises using if – Else. | **14th** | **40** | Revision of chapter 1 and 2 | VIVA-VOICE |
| **20** | 3.8 Passing an array to function  3.9 Pointers to an array and strings. | **41** | Revision of chapter 3 and 4 |
| **21** | Unit 4:  **Structures and Unions**  4.1 Declaration of structures | **42** | Revision of chapter 5 |