**GOVERNMENT POLYTECHNIC COLLEGE**

**PURASAWALKAM, CHENNAI - 12**

**DEPARTMENT OF COMPUTER ENGINEERING**

**II YEAR / III SEM / 2ND SHIFT**

**SUBJECT LOG : 35233- C PROGRAMMING**

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| **Subject handled by:** Manikandan J. **Designation :** Part Time / Guest Lecturer  |
| **HOURS** | **CHAPTER NO** | **PORTIONS COVERED** | **DATE** |
| **UNIT 1 : PROGRAM DEVELOPMENT & INTRODUCTION TO C (15 HRS)** |
|  | **1.1** | Introduction to C, Program development cycle, Programming language levels & features. | **11.06.2018** |
|  | Algorithm – Properties & classification of Algorithm | **12.06.2018** |
|  | Flow chart – symbols, importance & advantage of flow chart. | **12.06.2018** |
|  | **1.2** | History of C – features of C and Structure of C program | **13.06.2018** |
|  | Compiling, link & run a program. Diagrammatic representation of program execution process. | **14.06.2018** |
|  | **1.3** | Variables, Constants & Data types C character set-Tokens- Constants- Key words – identifiers and Variables | **15.06.2018** |
|  | Data types and storage – Data type Qualifiers | **15.06.2018** |
|  | Declaration of Variables – Assigning values to variables- Declaring variables as constants | **15.06.2018** |
|  | Declaration – Variables - Overflow & under flow of data | **15.06.2018** |
|  | **1.4** | C operators :- Arithmetic, Logical, Assignment, Relational, Increment and Decrement, Conditional | **18.06.2018** |
|  | Bitwise, Operator precedence and Associativity. | **20.06.2018** |
|  | C expressions – Arithmetic expressions – Evaluation of expressions | **21.06.2018** |
|  | Type cast operator | **21.06.2018** |
|  | **1.5** | Formatted input / output statements | **22.06.2018** |
|  | Unformatted input / output statements | **22.06.2018** |
|  |  | **TEST AND REVISION** |  |
|  |  | **TEST AND REVISION** |  |
| **UNIT 2 : DECISION MAKING, ARRAYS and STRINGS (16 HRS)** |
|  | **2.1** | Simple if statement and if –else statement,  | **22.06.2018** |
|  | else-if ladder , nested if-else | **25.06.2018** |
| **HOURS** | **CHAPTER NO** | **PORTIONS COVERED** | **DATE** |
|  | **2.1** | Switch statement , goto statement | **25.06.2018** |
|  | Simple programs. | **28.06.2018** |
|  | **2.2** | While, do-while statements | **28.06.2018** |
|  | for loop statements | **29.06.2018** |
|  | Break & continue statement | **02.07.2018** |
|  | Simple programs | **02.07.2018** |
|  | **2.3** | Declaration and initialization of One dimensional array | **04.07.2018** |
|  | Two dimensional and Character arrays | **04.07.2018** |
|  | Accessing array elements | **05.07.2018** |
|  | Programs using arrays | **09.07.2018** |
|  | **2.4** | Declaration and initialization of string variables | **09.07.2018** |
|  | Reading String, Writing Strings | **11.07.2018** |
|  | String handling functions | **11.07.2018** |
|  | String manipulation programs | **12.07.2018** |
|  |  | **TEST AND REVISION** |  |
|  |  | **TEST AND REVISION** |  |
| **UNIT 3 : FUNCTIONS, STRUCTURES AND UNIONS (16 HRS)** |
|  | **3.1** | Math functions – Console I/O functions | **18.07.2018** |
|  | Standard I/O functions | **19.07.2018** |
|  | Character Oriented functions | **19.07.2018** |
|  | Simple programs. | **19.07.2018** |
|  | **3.2** | User defined functions:- Defining functions & Needs | **24.07.2018** |
|  | Scope and Life time of Variables | **26.07.2018** |
|  | Function call – Call by value and Call by reference | **26.07.2018** |
|  | Return values, Storage classes | **27.07.2018** |
|  | Category of function and Recursion | **27.07.2018** |
|  | Simple programs | **27.07.2018** |
|  | **3.3** | Structure – Definition, initialization, arrays of structures | **30.07.2018** |
|  | Arrays with in structures | **30.07.2018** |
|  | Structures within structures,  | **30.07.2018** |
| **HOURS** | **CHAPTER NO** | **PORTIONS COVERED** | **DATE** |
|  | **3.3** | Structures and functions | **30.07.2018** |
|  | Unions – Structure of Union, Difference between Union and structure | **31.07.2018** |
|  | Simple programs. | **01.08.2018** |
|  |  | **TEST AND REVISION** |  |
|  |  | **TEST AND REVISION** |  |
| **UNIT 4 : POINTERS (17 HRS)** |
|  | **4.1** | Pointers Definition – advantages of pointers | **02.08.2018** |
|  | Accessing the address of a variable through pointers | **02.08.2018** |
|  | Declaring and initializing pointers, pointers expressions, | **03.08.2018** |
|  | **4.1** | Increment and scale factor | **06.08.2018** |
|  | Array of pointers | **06.08.2018** |
|  | Pointers and array | **09.08.2018** |
|  | Pointer and character strings | **10.08.2018** |
|  | Function arguments | **13.08.2018** |
|  | Pointers to functions | **13.08.2018** |
|  | Pointers and structures | **14.08.2018** |
|  | Programs using pointer | **14.08.2018** |
|  | Programs using pointer | **14.08.2018** |
|  | **4.2** | Dynamic Memory Management | **16.08.2018** |
|  | Dynamic memory allocation – allocating a block memory (MALLOC) | **21.08.2018** |
|  | Allocating multiple blocks of memory (CALLOC) | **21.08.2018** |
|  | Releasing the used space, free – altering the size of a block (REALLOC) | **23.08.2018** |
|  | Simple programs | **29.08.2018** |
|  |  | **TEST AND REVISION** |  |
|  |  | **TEST AND REVISION** |  |
| **UNIT 5 : FILE MANAGEMENT AND PREPROCESSORS (16 HRS)** |
|  | **5.1** | File Management Introduction-Definition | **30.08.2018** |
|  |  | Opening a file | **30.08.2018** |
| **HOURS** | **CHAPTER NO** | **PORTIONS COVERED** | **DATE** |
|  |  | Closing a file | **03.09.2018** |
|  |  | Input operations on files | **05.09.2018** |
|  | **5.1** | Output operations on files | **06.09.2018** |
|  | Error handling during I/O operations | **06.09.2018** |
|  | Random Access to files | **06.09.2018** |
|  | Programs using files | **10.09.2018** |
|  | Programs using files | **10.09.2018** |
|  | **5.2** | Command line arguments : Introduction – argv and argc arguments | **12.09.2018** |
|  | Programs using command Line Arguments | **12.09.2018** |
|  | Simple programs | **12.09.2018** |
|  | **5.3** | The preprocessor | **14.09.2018** |
|  | Macro Substitution | **14.09.2018** |
|  | File inclusion | **15.09.2018** |
|  | Compiler control directives | **15.09.2018** |
|  |  | **TEST AND REVISION** |  |
|  |  | **TEST AND REVISION** |  |