



**Computer Engineering Department**  
Government Engineering College, Dahod-389151.  
Mid Sem – January 2022- Syllabus  
Subject: PROGRAMMING FOR PROBLEM SOLVING (Odd 2021-22)  
Subject Code: 3110003  
Semester: 1<sup>st</sup> Branch: Civil & Mechanical  
Faculty: Prof A K Rathva (AKR) (3 Lecture/week)

20-01-2022

### MID SEM EXAM SYLLABUS

Sr. No.	Module Name	Topic Covered	CO's
1.	Introduction to computer and programming	Introduction, Basic block diagram and functions of various components of computer, Concepts of Hardware and software, Types of software, Compiler and interpreter, Concepts of Machine level, Assembly level and high level programming, Flowcharts and Algorithms	CO1
2.	Fundamentals of C	Features of C language, structure of C Program, comments, header files, data types, constants and variables, operators, expressions, evaluation of expressions, type conversion, precedence and associativity, I/O functions	CO2
3.	Control structure in C	Simple statements, Decision making statements, Looping statements, Nesting of control structures, break and continue, goto statement	CO3
4.	Array & String	Concepts of array, one and two dimensional arrays, declaration and initialization of arrays, string, string storage, Built-in-string functions	CO5
5.	Functions	Concepts of user defined functions, prototypes, definition of function, parameters, parameter passing, calling a function, recursive function, Macros, Pre-processing	CO4

#### PPS Course Outcomes:

- CO-1 Formulate algorithm/flowchart for given arithmetic and logical problem
- CO-2 Translate algorithm/flowchart into C program using correct syntax and execute it
- CO-3 Write programs using conditional, branching, iteration, and recursion
- CO-4 Decompose a problem into function
- CO-5 Develop an application using the concepts of array, pointer, structure, and file management to solve engineering and/or scientific problems

Prof. A K Rathva  
Subject- Incharge

Head, Computer Engineering Department,  
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