

COURSE HANDOUT

Course Code	ACSC13
Course Name	Design and Analysis of Algorithms
Class / Semester	IV SEM
Section	A-SECTION
Name of the Department	CSE-CYBER SECURITY
Employee ID	IARE11023
Employee Name	Dr K RAJENDRA PRASAD
Topic Covered	Greedy method: The general method
Course Outcome/s	Compare Identify suitable problem solving techniques for a given problem and finding optimized solutions using Greedy Method
Handout Number	26
Date	

Content about topic covered: Greedy Method: The general method

A **feasible solution** is any subset of inputs that satisfies a particular set of constraints.

An **optimal solution** is an achievable approach that either maximizes or minimizes a specified objective function.

Greedy method control abstraction:

```
Algorithm Greedy(a, n)
// a[l:n] contains the n inputs.
{
    solution :=  $\emptyset$ ; // Initialize the solution.
    for i := 1 to n do
    {
        x := Select(a);
        if Feasible(solution, x) then
            solution := Union (solution, x);
    }
    return solution;
}
```