## Lesson Plan

## Name of Faculty: Ms. Varsha Rani, Assistant Professor of CSE <br> Discipline: <br> Semester: <br> Subject: <br> Civil Engineering <br> 1st (odd)

Lesson Plan Duration: 15 weeks (from Jan-2021 to may-2021)

| Week | Theory |  | Topic Covered Date and Remarks |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | LectureDay | Topic (Including Assignment/Test) | Date | HOD | DirectorPrincipal |
| $1^{\text {st }}$ | 1 | Introduction to Programming |  |  |  |
|  | 2 | Introduction to component of Computer System |  |  |  |
|  | 3 | Idea of Algorithm |  |  |  |
|  | 4 | Representation of Algorithm |  |  |  |
| $2^{\text {nd }}$ | 5 | Algorithm to programs |  |  |  |
|  | 6 | Arithmetic expression |  |  |  |
|  | 7 | Arithmetic precedence |  |  |  |
|  | 8 | Conditional branching |  |  |  |
| $3^{\text {rd }}$ | 9 | Conditional loops |  |  |  |
|  | 10 | Writing and evaluations of conditional branching |  |  |  |
|  | 11 | Iteration and loops |  |  |  |
|  | 12 | Introduction of Arrays |  |  |  |
| $4^{\text {th }}$ | 13 | 1-D array |  |  |  |
|  | 14 | 2-D array |  |  |  |
|  | 15 | Character array |  |  |  |
|  | 16 | String |  |  |  |
| $5^{\text {th }}$ | 17 | Basic searching |  |  |  |
|  | 18 | Sorting algorithm |  |  |  |
|  | 19 | Bubble, insertion, selection sort |  |  |  |
|  | 20 | Finding roots of equation |  |  |  |
| $6^{\text {th }}$ | 21 | Notion of order of complexity |  |  |  |
|  | 22 | Functions |  |  |  |
|  | 23 | Parameter passing in function |  |  |  |
|  | 24 | Call by value |  |  |  |
| $7^{\text {th }}$ |  | $1^{\text {st }}$ Minor Test |  |  |  |
| $8^{\text {th }}$ | 25 | Call by reference |  |  |  |
|  | 26 | Recursion |  |  |  |
|  | 27 | Finding factorial |  |  |  |
|  | 28 | Fibonacci series |  |  |  |
| $9^{\text {th }}$ | 29 | Ackerman function |  |  |  |
|  | 30 | Quick sort |  |  |  |
|  | 31 | Merge sort |  |  |  |
|  | 32 | Assignment 1 |  |  |  |
| $10^{\text {th }}$ | 33 | Structures |  |  |  |
|  | 34 | Defining structure |  |  |  |
|  | 35 | Array of structure |  |  |  |
|  | 36 | Problem and solution |  |  |  |
| $11^{\text {th }}$ | 37 | Idea of pointers |  |  |  |
|  | 38 | Defining pointer |  |  |  |
|  | 39 | Use of pointer in structure |  |  |  |
|  | 40 | Notion of linked list |  |  |  |
| $12^{\text {th }}$ | 41 | Problem and solution |  |  |  |
|  | 42 | Assignment 2 |  |  |  |
|  | 43 | File handling |  |  |  |
|  | 44 | Program with help of pointer |  |  |  |
| $13^{\text {th }}$ | 45 | Program on searching |  |  |  |
|  | 46 | Program on sorting |  |  |  |
|  | 47 | Program on array |  |  |  |
|  | 48 | Program on structure |  |  |  |
| $14^{\text {th }}$ |  | $2^{\text {nd }}$ Minor Test |  |  |  |


| $15^{\text {th }}$ | 49 | Problem on unit 1 |  |  |  |
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|  | 50 | Problem on unit 2 |  |  |  |
|  | 51 | Problem on unit 3 |  |  |  |
|  | 52 | Problem Solution |  |  |  |

