



TCET/FRM/IP-02/10

Revision: B

**Semester Plan**  
**(Practical / Tutorials / Assignment)**

Semester: III

Course: **SE IT**

Batches: **A1, A3**

Subject: **Data Structures & Analysis**

Class: **SE-A**

Batch size: 20

Laboratory faculty in charge: Bhushan Nemade

Lab. Assistant /Attendant:

Note: **Experiment planned as per University Curriculum**

Mr.. Ram Phausdar

**Basic Experiments:**

| Sr. No. | TITLES<br>Experiments / Tutorials / Assignment<br>(Planning with use of Technology) | Planned Date | Completion Date | Remarks |
|---------|---|--------------|-----------------|---------|
| 1.      | Implementations of stack using menu driven program.                                 | A1:19/7/17   | 17/07/2017      |         |
|         |   | A3: 17/7/17  |                 |         |
| 2.      | Implementations of Infix to Postfix Transformation.                                 | A1:25/7/17   |                 |         |
|         |   | A3: 26/7/17  |                 |         |
| 3.      | Implementations of circular queue and Priority Queue                                | A1:01/08/17  |                 |         |
|         |   | A3:02/08/17  |                 |         |
| 4       | Implementation of Singly Linear Linked List. (Menu driven program)                  | A1: 08/08/17 |                 |         |
|         |   | A3: 09/08/17 |                 |         |

**Design/ Development Experiments:**

|   |  |              |  |  |
|---|--|--------------|--|--|
| 5 | Develop code in C language for Singly Circularly linked doubly linked list. (Menu driven program)              | A1:05/09/17  |  |  |
|   |  | A3: 16/08/17 |  |  |
| 6 | Develop code in C language for Binary Search Tree (Menu driven program) with insertion and Traversal operation | A1:12/09/17  |  |  |
|   |  | A3: 30/08/17 |  |  |
| 7 | Develop code in C language for Selection and insertion sort.   | A1:19/09/17  |  |  |
|   |  | A3: 06/09/17 |  |  |
| 8 | Develop code in C language for Quick Sort and Merge sort   | A1:26/09/17  |  |  |
|   |  | A3: 13/9/17  |  |  |

Issued By: MR

Approved By: Principal

|   |   |            |                     |                         |                              |                |           |           |
|---|---|------------|---------------------|-------------------------|------------------------------|----------------|-----------|-----------|
| 9   | Develop code in C language for Binary Search technique  |            |                     | A1:26/09/17             |                              |                |           |           |
|   |   |            |                     | A3: 20/09/17            |                              |                |           |           |
| 10  | Develop code in C language for Graph traversal techniques DFS & BFS   |            |                     | A1:3/10/17              |                              |                |           |           |
|   |   |            |                     | A3: 4/10/17             |                              |                |           |           |
| Group Learning Activity:  |   |            |                     |                         |                              |                |           |           |
| 11  | Mini Project:<br>Develop the code of syntax analyser for C programming language using stack based operation |            |                     | A1:03/10/17             |                              |                |           |           |
| 12  | Mini Project:<br>Develop the code for job scheduling using Queue based operation                            |            |                     | A3: 03/10/17            |                              |                |           |           |
| 13  | Case study:<br>NP, NP-Complete and NP-Hard  |            |                     | A1 and A3<br>11/10/2017 |                              |                |           |           |
| Mini /Minor Projects Objective: To get hands on experience to execute projects with respect to student choice in the following areas. (30 Hrs / Semester / Student). (Total 120 Hrs)<br>The areas are :<br>1. Research    2. Core        3. Interdisciplinary        4. Application<br>Mini /Minor Projects : |   |            |                     |                         |                              |                |           |           |
| S.No  | Project Title   |            |                     | Class                   | Group Size/<br>Project Hours | Project Type   | Reference |           |
| 1   | Mock Tests and Examination Management   |            |                     | TE                      | 3                            | Minor          | -         |           |
| 2   | Employee Training Scheduling and Materials  |            |                     | SE                      | 3                            | Mini           | -         |           |
| 3   | Careers and Employment Management System  |            |                     | SE                      | 3                            | Mini           | -         |           |
| 4   | Absence Request and Vacation Schedule Management  |            |                     | TE                      | 3                            | Minor          | -         |           |
| 5   | Development of a user friendly ,feature-rich, practical Appraisal Tracker (PRDP)                            |            |                     | TE                      | 3                            | Minor          | -         |           |
| 6   | Development of a feature-rich, practical online intranet knowledge management system for the college (KMS). |            |                     | TE                      | 3                            | Minor          | -         |           |
| No. of Prac   | Planned   | Compl eted | No. of Assignme nts | Planned                 | Completed                    | No. of Tut ori | Planned   | Completed |
|   | Basic Exp: 04   |            |                     | 03                      | 01(Low Profile               |                |           |           |
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|   |  |  |  |                                      |  |    |          |  |
|---|--|--|--|--------------------------------------|--|----|----------|--|
|   | <b>Design Base</b><br><b>Exp: 06</b><br><b>Bridge</b><br><b>Course: 01</b><br><b>Mini Project:</b><br>2<br><b>Case study:</b><br>1 |  |  |                                      |  | al | Student) |  |
| DOSLNE:   |  |  |  | DOSLE (engaged in some other dates): |  |    |          |  |
| <p>Group activities are required to be added with the practical related to course to enhance the learning activity of the student in the course. Group activity includes: Group presentation, new experiment design, mini projects etc.</p> <p><b>Note:</b></p> <ol style="list-style-type: none"><li>1. The practical plan date and completion date shall be in compliance. For any non-compliance reason(s) required to be stated in remark column.</li><li>2. Learning objective and outcome shall be clearly stated with each of experiments/ tutorials/ assignments and are required to be mapped at the end of the semester.</li><li>3. Entry for DOSLE (engaged on some other date) shall be done with proper mapping to DOSLNE.</li></ol> |  |  |  |                                      |  |    |          |  |
| <div style="display: flex; justify-content: space-between;"><div style="width: 30%;"><p><b>(Bhushan Nemade)</b><br/>Name &amp; Signature of Faculty</p><p>Date: 11/07/2017</p></div><div style="width: 30%;"><p>Signature of HOD</p><p>Date:</p></div><div style="width: 30%;"><p>Signature of Principal / Dean Academic</p><p>Date:</p></div></div>  |  |  |  |                                      |  |    |          |  |
| Issued By: MR   |  |  |  | Approved By: Principal               |  |    |          |  |