# University of Madras – CBCS Regulations

# B.Sc Computer Science – Syllabus

## SEMESTER-I

| COURSE COMPONENTS/TITLE OF THE PAPER | Credits | MAX. MARKS | | |
| --- | --- | --- | --- | --- |
| | | External | Internal | TOTAL |
| PART I-Language Paper I | 3 | 75 | 25 | 100 |
| PART II-English Paper I | 3 | 75 | 25 | 100 |
| PART III-Programming in C | 4 | 75 | 25 | 100 |
| PART III-Practical – I : Programming in C . | 4 | 60 | 40 | 100 |
| Allied – Paper – I-Mathematics – I | 5 | 75 | 25 | 100 |
| Part IV-*Basic Tamil/ Adv. Tamil/Non-Major Elective | | 75 | 25 | 100 |
| Soft Skill I | | 50 | 50 | 100 |

Non-Major Electives for Semester I:-
Any one:-
1. MS- Access
2. Web Application
3. HTML
4. Flash

## SEMESTER II

| Course Components/ Title of the Course | Credits | External | Internal | TOTAL |
|---|---|---|---|---|
| PART I-LANG.PAPER-II | 3 | 75 | 25 | 100 |
| PART II-ENGLISH PAPER -II | 3 | 75 | 25 | 100 |
| PART III-Digital Electronics and Microprocessor | 4 | 75 | 25 | 100 |
| PART III-Practical II - Digital Electronics & Microprocessors Lab | 4 | 60 | 40 | 100 |
| Allied – Paper – II-Mathematics - II | 5 | 75 | 25 | 100 |
| Part IV-*Basic Tamil/ Adv. Tamil/Non-Major Elective | | 75 | 25 | 100 |
| Soft Skill II | | 50 | 50 | 100 |

Note: *Maximum Marks* header spans External, Internal, TOTAL columns.

Syllabus for foundation courses are to be followed as prescribed for common U.G. courses

Non-Major Electives for Semester II:-
Any one:-
1. MS Access Lab
2. Web Application Lab
3. HTML Lab

## SEMESTER III

| Course Component/ Title of the Paper | Credits | Ext. Marks | Int. Marks | Total |
|---|---|---|---|---|
| PART I- LANG. PAPER III | 3 | 75 | 25 | 100 |
| PART II-ENGLISH PAPER III | 3 | 75 | 25 | 100 |
| PART III- Core Paper – Programming in C++ and Data Structures | 4 | 75 | 25 | 100 |
| PART III- Core Paper – VI Practical – III : Data Structures using C++ | 4 | 60 | 40 | 100 |
| Allied –II- Paper – I | 5 | 75 | 25 | 100 |
| PART IV -Soft Skill – III | 3 | 60 | 40 | 100 |
| Environmental Studies | Examination will be held in IV Semester | | | |

Note: *MAX.MARKS* header spans Ext. Marks, Int. Marks, Total columns.

# SEMESTER IV

| Course Components/ Title of the Paper | Credits | MAX.MARKS | | |
|---|---|---|---|---|
| | | Ext. Marks | Int. Marks | Total |
| **PART I -**LANG.PAPER-IV | 3 | 75 | 25 | 100 |
| PART II -ENGLISH PAPER –IV | 3 | 75 | 25 | 100 |
| PART III  - Paper – VII  - Programming in JAVA | 4 | 75 | 25 | 100 |
| PART III  –  Paper - VIII -  Practical – IV-  Java Programming  Lab | 4 | 60 | 40 | 100 |
| Allied–II-  Paper – II | 5 | 75 | 25 | 100 |
| PART IV-Soft Skill–IV | 3 | 60 | 40 | 100 |
| Environmental Studies | 2 | 75 | 25 | 100 |

# SEMESTER V

| Course Components/Title of the Paper | Credits | MAX.MARKS | | |
|---|---|---|---|---|
| | | Ext. Marks | Int. Marks | Total |
| Part III- Core Paper - IX -Operating systems | 4 | 75 | 25 | 100 |
| Part III-Core Paper - X   -  Database Management Systems | 4 | 75 | 25 | 100 |
| Part III  -Core Paper - XI    -  Computer Architecture and Organization | 4 | 75 | 25 | 100 |
| Part III  -Core Paper - XII  Practical – V : RDBMS LAB | 4 | 60 | 40 | 100 |
| Part III -Elective – I | 5 | 75 | 25 | 100 |
| PART -IV  4. Value Education | 2 | | | |

## SEMESTER VI

| Course Components/Title of the Paper | Credits | MAX.MARKS | | |
|---|---|---|---|---|
| | | Ext. Marks | Int. Marks | Total |
| Part III –Core Paper - XIII  -   Data Communication and Networking | 4 | 75 | 25 | 100 |
| Part III   Core Paper - XIV -  Web Technology | 4 | 75 | 25 | 100 |
| Part III Core Paper -XV  -    Practical – VI  Web Applications LAB | 4 | 60 | 40 | 100 |
| Part III-Elective – II | 5 | 75 | 25 | 100 |
| Part III-Elective – III | 5 | 75 | 25 | 100 |
| PART- V  Extension Activities | 1 | | | |

**Elective – I**
Visual Programming / RDBMS with ORACLE / Unix Programming
**Elective - II**
Data Mining / Software Testing / Object Oriented Analysis and Design
**Elective - III**
Client Server Computing /Computer Graphics/ Software Engineering

One of the following allied shall be chosen for Allied – II
        (a) Physics      (b) Statistical Methods and their applications