

Scheme – I & II Semesters Combined

Scheme – I & II (Common to all branches)

| Course Code | Course No. | Subject | Teaching Period | | | Duration of Uty. Exam (hrs) | Marks | | | |
|-------------|------------|-------------------------------|-----------------|------|-------|-----------------------------|-----------|--------|-----------|-------|
| | | | Lect. | Tut. | Prac. | | Sessional | Theory | Practical | Total |
| | CME LRPTA | | | | | | | | | |
| A | 101 | Engineering Mathematics I | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| B | 102 | Engineering Physics | 1 | 1 | - | 3 | 50 | 100 | - | 150 |
| C | 103 | Engineering Chemistry | 1 | 1 | - | 3 | 50 | 100 | - | 150 |
| D | 104 | Engineering Mechanics | 2 | 2 | - | 3 | 50 | 100 | - | 150 |
| E | 105 | Engineering Graphics | 1 | - | 3 | 3 | 50 | 100 | - | 150 |
| F | 106 | Basic Civil Engineering | 1 | 1 | - | 3 | 50 | 100 | - | 150 |
| G | 107 | Basic Mechanical Engineering | 1 | 1 | - | 3 | 50 | 100 | - | 150 |
| H | 108 | Basic Electrical Engineering | 1 | 1 | - | 3 | 50 | 100 | - | 150 |
| I | 109 | Basic Electronics Engineering | 1 | 1 | - | 3 | 50 | 100 | - | 150 |
| J | 110 | Workshop | - | - | 6* | - | 50x3 | - | - | 150 |
| | | Total | 12 | 9 | 9 | - | 600 | 900 | - | 1500 |

*3 periods will be in Mechanical Engineering Workshop and 3 periods in Civil Engineering Workshop & Electrical Engineering Workshop alternately.

3RD SEMESTER

| Course Code | Course No. | Subject | Teaching Periods | | | Uty. Exam duration (hours) | Marks | | | |
|-------------|------------|--|------------------|---|---|----------------------------|-----------|--------|-----------|-------|
| | | | L | T | P | | Sessional | Theory | Practical | Total |
| A | RT301 | Engineering Mathematics II | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| B | R 302 | Micro Processor Systems | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| C | RT 303 | Solid State Electronics | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| D | RT 304 | Problem Solving and Computer Programming | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| E | RT 305 | Humanities | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| F | R306 | Logic System Design | 3 | 1 | - | | 50 | 100 | - | 150 |
| G | R 307 | Solid State Electronics Lab | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| H | R 308 | Programming Lab | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| | | Total | 16 | 6 | 8 | - | 400 | 600 | 200 | 1200 |

4TH SEMESTER

| Course Code | Course No. | Subject | Teaching Periods | | | Uty. Exam duration (hours) | Marks | | | |
|-------------|---------------|---|------------------|---|---|----------------------------|-----------|--------|-----------|-------|
| | | | L | T | P | | Sessional | Theory | Practical | Total |
| A | CMEL RPTA 401 | Engineering Mathematics III | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| B | R 402 | Computer Organization | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| C | R 403 | Object Oriented Programming | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| D | R 404 | Integrated Circuits | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| E | R 405 | Data Structures and Programming Methodologies | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| F | R406 | Advanced Microprocessors and Peripherals | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| G | R 407 | Integrated Circuits Lab | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| H | R 408 | Data Structures Lab | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| | | Total | 16 | 6 | 8 | - | 400 | 600 | 200 | 1200 |

5TH SEMESTER

| Course Code | Course No. | Subject | Teaching Periods | | | Uty. Exam duration (hours) | Marks | | | |
|-------------|------------|--------------------------------|------------------|---|---|----------------------------|-----------|--------|-----------|-------|
| | | | L | T | P | | Sessional | Theory | Practical | Total |
| A | RT501 | Engineering Mathematics IV | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| B | R 502 | Operating Systems | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| C | RT503 | Database Management Systems | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| D | R 504 | File Structures and Algorithms | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| E | RT505 | Language Processors | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| F | RT506 | Data Communication | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| G | R 507 | Microprocessor Lab | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| H | R 508 | Database Lab | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| | | Total | 16 | 6 | 8 | - | 400 | 600 | 200 | 1200 |

6TH SEMESTER

| Course Code | Course No. | Subject | Teaching Periods | | | Uty. Exam duration (hours) | Marks | | | |
|-------------|------------|--|------------------|---|--------------|-----------------------------|-----------|--------|-----------|-------|
| | | | L | T | Prac./ Proj. | | Sessional | Theory | Practical | Total |
| A | R 601 | PC & PC based Systems | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| B | RT602 | Software Engineering | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| C | R 603 | Project Management and Quality Assurance | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| D | RT604 | Computer Networks | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| E | RT605 | Network Computing | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| F | R 606 | Algorithm Analysis and Design | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| G | R 607 | System Software Lab | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| H | R 608 | Mini Project | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| | | Total | 16 | 6 | 8 | - | 400 | 600 | 200 | 1200 |

7TH SEMESTER

| Course Code | Course No. | Subject | Teaching Periods | | | Uty. Exam duration (hours) | Marks | | | |
|-------------|------------|--------------------------------------|------------------|---|--------------|----------------------------|-----------|--------|-----------|-------|
| | | | L | T | Prac./ Proj. | | Sessional | Theory | Practical | Total |
| A | RT701 | Object Oriented Modeling and Design | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| B | RT702 | Computer Graphics | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| C | R 703 | Theory of Computation | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| D | R 704 | Advanced Software Environments | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| E | RT705 | Web Technologies | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| F | R 706 | Elective I | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| G | R 707 | Computer Hardware and Networking Lab | 0 | 0 | 3 | 3 | 50 | - | 100 | 150 |
| H | R 708 | Network Programming Lab | 0 | 0 | 3 | 3 | 50 | - | 100 | 150 |
| I | R709 | Project & Seminar | 0 | 0 | 3 | - | - | - | - | - |
| | | Total | 15 | 6 | 9 | - | 400 | 600 | 200 | 1200 |

8TH SEMESTER

| Course Code | Course No. | Subject | Teaching Periods | | | Uty. Exam duration (hours) | Marks | | | |
|-------------|------------|-------------------------------------|------------------|---|--------------|-----------------------------|-----------|--------|-----------|-------|
| | | | L | T | Prac./ Proj. | | Sessional | Theory | Practical | Total |
| A | RT801 | Security in Computing | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| B | R 802 | High Performance Computing | 2 | 1 | - | 3 | 50 | 100 | - | 150 |
| C | R 803 | Principles of Programming Languages | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| D | RT804 | Artificial Intelligence | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| E | R 805 | Elective II | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| F | R 806 | Elective III | 3 | 1 | - | 3 | 50 | 100 | - | 150 |
| G | R 807 | Graphics and Multimedia Lab | 0 | 0 | 4 | 3 | 50 | - | 100 | 150 |
| H | R 808 | Project & Seminar | 0 | 0 | 4 | - | 100 | - | - | 100 |
| I | R809 | Viva-Voce | - | - | - | - | - | - | 50 | 50 |
| | | Total | 16 | 6 | 8 | | 450 | 600 | 150 | 1200 |