### 1-1 SEMESTER

| Programme Name | Course Name   | R16 | R13 |
|----------------|---|-----|-----|
| BTECH/EEE      | English – I   | ✓   | ✓   |
| BTECH/EEE      | Mathematics - I                                     | ✓   | ✓   |
| BTECH/EEE      | Applied Chemistry                                   | ✓   | X   |
| BTECH/EEE      | Engineering Mechanics                               | ✓   | X   |
| BTECH/EEE      | Computer Programming                                | ✓   | X   |
| BTECH/EEE      | Environmental Studies                               | ✓   | X   |
| BTECH/EEE      | Applied / Engineering Chemistry Laboratory          | ✓   | X   |
| BTECH/EEE      | English- Communication Skills Laboratory - I        | ✓   | ✓   |
| BTECH/EEE      | Computer Programming Laboratory                     | ✓   | X   |
| BTECH/EEE      | Mathematics – II (Mathematical Methods)             | X   | ✓   |
| BTECH/EEE      | Engineering Physics                                 | X   | ✓   |
| BTECH/EEE      | Professional Ethics and Human Values                | X   | ✓   |
| BTECH/EEE      | Engineering Drawing                                 | X   | ✓   |
| BTECH/EEE      | Engineering Physics Laboratory                      | X   | ✓   |
| BTECH/EEE      | Engineering Physics – Virtual Labs -<br>Assignments | X   | 1   |
| BTECH/EEE      | Engineering Workshop & IT Workshop                  | X   | ✓   |

| Programme Name | Course Name  | R16 | R13      |
|----------------|--|-----|----------|
| BTECH/EEE      | English – II   | 1   | ✓        |
| BTECH/EEE      | Mathematics – II (Mathematical Methods)                    | ✓   | X        |
| BTECH/EEE      | Mathematics – III  | ✓   | ✓        |
| BTECH/EEE      | Applied Physics  | 1   | X        |
| BTECH/EEE      | Electrical Circuit Analysis - I                            | 1   | ✓        |
| BTECH/EEE      | Engineering Drawing  | 1   | X        |
| BTECH/EEE      | English - Communication Skills Laboratory - II             | 1   | ✓        |
| BTECH/EEE      | Applied / Engineering Physics Laboratory                   | 1   | X        |
| BTECH/EEE      | Applied / Engineering Physics – Virtual Labs - Assignments | 1   | X        |
| BTECH/EEE      | Engg. Workshop & IT Workshop                               | ✓   | X        |
| BTECH/EEE      | Engineering Chemistry                                      | X   | ✓        |
| BTECH/EEE      | Engineering Mechanics                                      | X   | ✓        |
| BTECH/EEE      | Computer Programming                                       | X   | <b>✓</b> |
| BTECH/EEE      | Engineering Chemistry Lab                                  | X   | ✓        |
| BTECH/EEE      | C Programming lab  | X   | 1        |

## 2-1 SEMESTER

| Programme Name | Course Name                               | R16 | R13 |
|----------------|---|-----|-----|
| BTECH/EEE      | Electrical Circuit Analysis - II          | ✓   | ✓   |
| BTECH/EEE      | Electrical Machines-I                     | ✓   | ✓   |
| BTECH/EEE      | Basic Electronics and Devices             | ✓   | ✓   |
| BTECH/EEE      | Electro Magnetic Fields                   | ✓   | ✓   |
| BTECH/EEE      | Thermal and Hydro Prime Movers            | ✓   | ✓   |
| BTECH/EEE      | Managerial Economics & Financial Analysis | ✓   | X   |
| BTECH/EEE      | Thermal and Hydro Laboratory              | ✓   | ✓   |
| BTECH/EEE      | Electrical Circuits Laboratory            | ✓   | ✓   |
| BTECH/EEE      | Complex Variables and Statistical Methods | X   | 1   |

| Programme Name | Course Name                              | R16 | R13 |
|----------------|--|-----|-----|
| BTECH/EEE      | Electrical Measurements                  | ✓   | X   |
| BTECH/EEE      | Electrical Machines-II                   | ✓   | ✓   |
| BTECH/EEE      | Switching Theory and Logic Design        | ✓   | ✓   |
| BTECH/EEE      | Control Systems                          | ✓   | ✓   |
| BTECH/EEE      | Power Systems-I                          | ✓   | ✓   |
| BTECH/EEE      | Management Science                       | ✓   | X   |
| BTECH/EEE      | Electrical Machines -I Laboratory        | ✓   | ✓   |
| BTECH/EEE      | Electronic Devices & Circuits Laboratory | ✓   | ✓   |
| BTECH/EEE      | Environmental studies                    | X   | 1   |
| BTECH/EEE      | Pulse & Digital Circuits                 | X   | 1   |

## **3-1 SEMESTER**

| Programme Name | Course Name                                 | R16 | R13 |
|----------------|---|-----|-----|
| BTECH/EEE      | Power Systems-II                            | ✓   | ✓   |
| BTECH/EEE      | Renewable Energy Sources                    | 1   | X   |
| BTECH/EEE      | Signals and Systems                         | ✓   | X   |
| BTECH/EEE      | Pulse & Digital Circuits                    | ✓   | X   |
| BTECH/EEE      | Power Electronics                           | 1   | ✓   |
| BTECH/EEE      | Electrical Machines-II Laboratory           | 1   | ✓   |
| BTECH/EEE      | Control Systems Laboratory                  | ✓   | ✓   |
| BTECH/EEE      | Electrical Measurements Laboratory          | ✓   | X   |
| BTECH/EEE      | IPR & Patents                               | ✓   | ✓   |
| BTECH/EEE      | Managerial Economics and Financial Analysis | X   | ✓   |
| BTECH/EEE      | Electrical Measurements                     | X   | ✓   |
| BTECH/EEE      | Electrical Machines-III                     | X   | 1   |
| BTECH/EEE      | Linear & Digital IC Applications            | X   | 1   |

| Programme Name | Course Name                                   | R16 | R13 |
|----------------|---|-----|-----|
| BTECH/EEE      | Power Electronic Controllers & Drives         | 1   | X   |
| BTECH/EEE      | Power System Analysis                         | 1   | ✓   |
| BTECH/EEE      | Micro Processors and Micro controllers        | 1   | ✓   |
| BTECH/EEE      | Data Structures                               | ✓   | X   |
| BTECH/EEE      | Unix and Shell Programming                    | ✓   | X   |
| BTECH/EEE      | OOPS Through JAVA                             | ✓   | X   |
| BTECH/EEE      | VLSI Design                                   | ✓   | X   |
| BTECH/EEE      | Robotics                                      | 1   | X   |
| BTECH/EEE      | Neural Networks &Fuzzy Logic                  | 1   | X   |
| BTECH/EEE      | Energy Audit and Conservation& Management     | ✓   | X   |
| BTECH/EEE      | Power Electronics Laboratory                  | ✓   | ✓   |
| BTECH/EEE      | Microprocessors & Microcontrollers Laboratory | ✓ · | X   |
| BTECH/EEE      | Data Structures Laboratory                    | ✓   | X   |
| BTECH/EEE      | Professional Ethics & Human Values            | ✓   | X   |
| BTECH/EEE      | Switchgear and Protection                     | X   | ✓   |
| BTECH/EEE      | Utilization of Electrical Energy              | X   | ✓   |
| BTECH/EEE      | Power Semiconductor Drives                    | X   | ✓   |
| BTECH/EEE      | Management Science                            | X   | ✓   |
| BTECH/EEE      | Electrical Measurements Lab                   | X   | ✓   |

# 4-1 SEMESTER

| Programme Name | Course Name                                  | R16 | R13      |
|----------------|--|-----|----------|
| BTECH/EEE      | Utilization of Electrical Energy             | ✓   | X        |
| BTECH/EEE      | Linear IC Applications                       | ✓   | X        |
| BTECH/EEE      | Power System Operation & Control             | ✓   | X        |
| BTECH/EEE      | Switchgear and Protection                    | ✓   | X        |
| BTECH/EEE      | Electrical Machine Modeling and Analysis     | ✓   | X        |
| BTECH/EEE      | Advanced Control Systems                     | ✓   | X        |
| BTECH/EEE      | Programmable Logic Controllers& Applications | ✓   | X        |
| BTECH/EEE      | Instrumentation                              | ✓   | ✓        |
| BTECH/EEE      | Optimization Techniques                      | ✓   | ✓        |
| BTECH/EEE      | Electric Power Quality                       | ✓   | X        |
| BTECH/EEE      | Special Electrical Machines                  | ✓   | X        |
| BTECH/EEE      | Electrical Simulation Laboratory             | ✓   | ✓        |
| BTECH/EEE      | Power Systems & Simulation Laboratory        | ✓   | ✓        |
| BTECH/EEE      | Renewable Energy Sources and Systems         | X   | ✓        |
| BTECH/EEE      | HVAC & DC Transmission                       | X   | ✓        |
| BTECH/EEE      | Power System Operation & Control             | X   | ✓        |
| BTECH/EEE      | Energy Audit, Conservation and Management    | X   | ✓        |
| BTECH/EEE      | Non Conventional Sources of Energy           | X   | ✓        |
| BTECH/EEE      | VLSI Design                                  | X   | ✓        |
| BTECH/EEE      | Electrical Distribution Systems              | X   | ✓        |
| BTECH/EEE      | Microprocessors & Microcontrollers Lab       | X   | <b>✓</b> |

| Programme Name | Course Name                                       | R16 | R13      |
|----------------|---|-----|----------|
| BTECH/EEE      | Digital Control Systems                           | ✓   | ✓        |
| BTECH/EEE      | HVDC Transmission                                 | ✓   | X        |
| BTECH/EEE      | Electrical Distribution Systems                   | ✓   | X        |
| BTECH/EEE      | High Voltage Engineering                          | ✓   | X        |
| BTECH/EEE      | Flexible Alternating Current Transmission Systems | ✓   | ✓        |
| BTECH/EEE      | Power System Reforms                              | ✓   | ✓        |
| BTECH/EEE      | Seminar   | ✓   | X        |
| BTECH/EEE      | Project   | ✓   | ✓        |
| BTECH/EEE      | Advanced Control Systems                          | X   | ✓        |
| BTECH/EEE      | Extra High Voltage Transmission                   | X   | ✓        |
| BTECH/EEE      | Special Electrical Machines                       | X   | ✓        |
| BTECH/EEE      | Electric Power Quality                            | X   | ✓        |
| BTECH/EEE      | Digital Signal Processing                         | X   | ✓        |
| BTECH/EEE      | OOPS Through Java                                 | X   | ✓        |
| BTECH/EEE      | UNIX and Shell Programming                        | X   | <b>✓</b> |
| BTECH/EEE      | AI Techniques                                     | X   | <b>√</b> |
| BTECH/EEE      | Power System Reforms                              | X   | <b>✓</b> |
| BTECH/EEE      | Systems Engineering                               | X   | <b>✓</b> |