

Rajasthan Technical University Kota

Teaching and Examination Scheme for B.Tech. (Four Year Courses)

Branch Electrical Engineering

Branch Code EE

| Year | II | Semester | III | | | Duration of Exam. (Hrs) | Maximum Marks | | Total |
|--------|--|----------|-----------|----------|-----------|-------------------------|---------------|------|-------|
| | | | Hrs./Week | | | | IA | Exam | |
| | | | Lecture | Tutorial | Practical | | | | |
| Code | Subject | | | | | | | | |
| 3EE1 | Power Electronics-I | 2 | 1 | | 3 | 20 | 80 | 100 | |
| 3EE2 | Computer Programming-I | 3 | | | 3 | 20 | 80 | 100 | |
| 3EE3 | Circuit Analysis-I | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 3EE4 | Electrical Machines-I | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 3EE5 | Electrical Measurements | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 3EE6.1 | Mathematics | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 3EE6.2 | | | | | | | | | |
| 3EE6.3 | | | | | | | | | |
| 3EE6.4 | | | | | | | | | |
| 3EE7 | Power Electronics Lab-I | | | 2 | 2 | 45 | 30 | 75 | |
| 3EE8 | Computer Programming Lab-I | | | 2 | 2 | 45 | 30 | 75 | |
| 3EE9 | Electrical Circuit Lab | | | 2 | 2 | 45 | 30 | 75 | |
| 3EE10 | Electrical Machines Lab-I | | | 2 | 2 | 45 | 30 | 75 | |
| 3EE11 | Electrical Measurement Lab | | | 2 | 2 | 30 | 20 | 50 | |
| 3EEDC | Discipline/Extra-Curricular Activities | | | | | | | 50 | |
| | Total | 17 | 5 | 10 | | 330 | 620 | 1000 | |
| | Total Teaching hours | 32 | | | | | | | |

| Year | II | Semester | IV | | | Duration of Exam. (Hrs) | Maximum Marks | | Total |
|--------|--|----------|-----------|----------|-----------|-------------------------|---------------|------|-------|
| | | | Hrs./Week | | | | IA | Exam | |
| | | | Lecture | Tutorial | Practical | | | | |
| Code | Subject | | | | | | | | |
| 4EE1 | Power Electronics-II | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 4EE2 | Digital Electronics | 3 | | | 3 | 20 | 80 | 100 | |
| 4EE3 | Electrical Machines-II | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 4EE4 | Computer Programming -II | 3 | | | 3 | 20 | 80 | 100 | |
| 4EE5 | Circuit Analysis-II | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 4EE6.1 | Advanced Mathematics | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 4EE6.2 | | | | | | | | | |
| 4EE6.3 | | | | | | | | | |
| 4EE6.4 | | | | | | | | | |
| 4EE7 | Power Electronics Lab-II | | | 2 | 2 | 45 | 30 | 75 | |
| 4EE8 | Digital Electronics Lab | | | 2 | 2 | 45 | 30 | 75 | |
| 4EE9 | Electrical Machines Lab-II | | | 2 | 2 | 45 | 30 | 75 | |
| 4EE10 | Computer Programming Lab-II | | | 2 | 2 | 45 | 30 | 75 | |
| 4EE11 | Humanities & Social Sciences | | | 2 | 2 | 30 | 20 | 50 | |
| 4EEDC | Discipline/Extra-Curricular Activities | | | | | | | 50 | |
| | Total | 18 | 4 | 10 | | 330 | 620 | 1000 | |
| | Total Teaching hours | 32 | | | | | | | |

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| Year | III | Semester | V | | | Duration of Exam. (Hrs) | Maximum Marks | | Total |
|--------|---|----------|-----------|----------|-----------|-------------------------|---------------|------|-------|
| | | | Hrs./Week | | | | IA | Exam | |
| | | | Lecture | Tutorial | Practical | | | | |
| 5EE1 | Power Electronics-III | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 5EE2 | Microprocessors & Computer Architecture | 3 | | | 3 | 20 | 80 | 100 | |
| 5EE3 | Control Systems | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 5EE4 | Generation of Electrical Power | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 5EE5 | Transmission & Distribution of Electrical Power | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 5EE6.1 | Advanced Distribution System | 3 | | | 3 | 20 | 80 | 100 | |
| 5EE6.2 | Principle of Communication Systems | | | | | | | | |
| 5EE6.3 | Introduction to VLSI | | | | | | | | |
| 5EE6.4 | | | | | | | | | |
| 5EE7 | Power Electronics Lab-III | | | 2 | 2 | 45 | 30 | 75 | |
| 5EE8 | Microprocessor Lab | | | 2 | 2 | 45 | 30 | 75 | |
| 5EE9 | MATLAB Programming Lab | | | 2 | 2 | 45 | 30 | 75 | |
| 5EE10 | Power System Design | | | 2 | 2 | 45 | 30 | 75 | |
| 5EE11 | Entrepreneurship Development | | | 2 | 2 | 30 | 20 | 50 | |
| 5EEDC | Discipline/Extra-Curricular Activities | | | | | | | 50 | |
| | Total | 18 | 4 | 10 | | 330 | 620 | 1000 | |
| | Total Teaching hours | 32 | | | | | | | |

| Year | III | Semester | VI | | | Duration of Exam. (Hrs) | Maximum Marks | | Total |
|--------|--|----------|-----------|----------|-----------|-------------------------|---------------|------|-------|
| | | | Hrs./Week | | | | IA | Exam | |
| | | | Lecture | Tutorial | Practical | | | | |
| 6EE1 | Modern Control Theory | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 6EE2 | High Voltage Engineering | 3 | | | 3 | 20 | 80 | 100 | |
| 6EE3 | Protection of Power System | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 6EE4 | Advanced Power Electronics | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 6EE5 | Data Structures in C | 3 | | | 3 | 20 | 80 | 100 | |
| 6EE6.1 | Advanced Microprocessors | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 6EE6.2 | Power System Instrumentation | | | | | | | | |
| 6EE6.3 | Digital Communication and Information Theory | | | | | | | | |
| 6EE6.4 | | | | | | | | | |
| 6EE7 | Control System Lab | | | 2 | 2 | 45 | 30 | 75 | |
| 6EE8 | Power System Lab | | | 2 | 2 | 60 | 40 | 100 | |
| 6EE9 | Data Structures Lab | | | 2 | 2 | 45 | 30 | 75 | |
| 6EE10 | Advanced Power Electronics Lab | | | 2 | 2 | 60 | 40 | 100 | |
| 6EE11 | | | | | | | | | |
| 6EEDC | Discipline/Extra-Curricular Activities | | | | | | | 50 | |
| | Total | 18 | 4 | 8 | | 330 | 620 | 1000 | |
| | Total Teaching hours | 30 | | | | | | | |

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| Year | IV | Semester | VII | | | | | | |
|--------|--|-----------|----------|-----------|-------------------------|---------------|------|-------|--|
| | | Hrs./Week | | | Duration of Exam. (Hrs) | Maximum Marks | | Total | |
| Code | Subject | Lecture | Tutorial | Practical | | IA | Exam | | |
| 7EE1 | Data Base Management System | 3 | | | 3 | 20 | 80 | 100 | |
| 7EE2 | Power System Analysis | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 7EE3 | Artificial Intelligence Techniques | 3 | | | 3 | 20 | 80 | 100 | |
| 7EE4 | Utilization of Electrical Power | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 7EE5 | Power System Engineering | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 7EE6.1 | Electromagnetic Field Theory | 3 | | | 3 | 20 | 80 | 100 | |
| 7EE6.2 | Computer Aided Design of Electrical Machines | | | | | | | | |
| 7EE6.3 | Economic Operation of Power Systems | | | | | | | | |
| 7EE6.4 | | | | | | | | | |
| 7EE7 | DBMS Lab | | | 2 | 2 | 45 | 30 | 75 | |
| 7EE8 | Power System Modelling & Simulation Lab | | | 2 | 2 | 45 | 30 | 75 | |
| 7EE9 | Industrial Economics & Management | | | 2 | 2 | 30 | 20 | 50 | |
| 7EE10 | Project Stage I | | | 2 | 2 | 60 | 40 | 100 | |
| 7EE11 | Practical Training & Industrial Visit | | | 2 | 2 | 30 | 20 | 50 | |
| 7EEDC | Discipline/Extra-Curricular Activities | | | | | | | 50 | |
| | Total | 18 | 3 | 10 | | 330 | 620 | 1000 | |
| | Total Teaching hours | 31 | | | | | | | |

| Year | IV | Semester | VIII | | | | | | |
|--------|--|-----------|----------|-----------|-------------------------|---------------|------|-------|--|
| | | Hrs./Week | | | Duration of Exam. (Hrs) | Maximum Marks | | Total | |
| Code | Subject | Lecture | Tutorial | Practical | | IA | Exam | | |
| 8EE1 | EHV AC/DC Transmission | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 8EE2 | Electric Drives and Their Control | 3 | 1 | | 3 | 20 | 80 | 100 | |
| 8EE3 | Switchgear & Protection | 3 | | | 3 | 20 | 80 | 100 | |
| | | | | | | | | | |
| | | | | | | | | | |
| 8EE4.1 | Non Conventional Energy Sources | 3 | | | 3 | 20 | 80 | 100 | |
| 8EE4.2 | FACTS Devices & Their Applications | | | | | | | | |
| 8EE4.3 | Power System Transients | | | | | | | | |
| 8EE4.4 | | | | | | | | | |
| 8EE5 | Computer Based Power System Lab | | | 3 | 2 | 60 | 40 | 100 | |
| 8EE6 | Electrical Drives and Control Lab | | | 3 | 2 | 60 | 40 | 100 | |
| 8EE7 | High Voltage Engineering Lab | | | 2 | 2 | 30 | 20 | 50 | |
| 8EE8 | Seminar | | | 2 | 2 | 60 | 40 | 100 | |
| 8EE9 | Project Stage II | | | 4 | 2 | 120 | 80 | 200 | |
| 8EEDC | Discipline/Extra-Curricular Activities | | | | | | | 50 | |
| | Total | 12 | 2 | 14 | | 410 | 540 | 1000 | |
| | Total Teaching hours | 28 | | | | | | | |

| | | | | | | | | |
|-------------|-----|----|----|--|--|------|------|------|
| Grand Total | 100 | 23 | 62 | | | 2060 | 3640 | 6000 |
|-------------|-----|----|----|--|--|------|------|------|