**Syllabus for B.Tech(Electrical Engineering) Up to Fourth Year**



**3rd Semester**

**Theory**:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.** |  | **CODE** |  | **Paper** | **Contacts periods Per** | | | | | | |  |  | **Total** |  | **Credits** | |  |  |
| **No.** |  |  |  |  |  |  | **weeks** | | |  |  |  | **Contact Hrs** | |  |  |  |  |  |
|  |  |  |  |  |  | **L** |  | **T** |  | **P** | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  | M (CS) 301 |  | Numerical Methods | 2 |  | 1 |  |  | 0 |  |  | 3 | |  | 2 | |  |  |
| 2 |  | M302 |  | Mathematics-III | 3 |  | 1 |  |  | 0 |  |  | 4 | |  | 4 | |  |  |
| 3 |  | EC(EE)301 |  | Analog Electronic circuits | 3 |  | 0 |  |  | 0 |  |  | 3 | |  | 3 | |  |  |
| 4 |  | EC(EE)302 |  | Digital Electronic circuit | 3 |  | 0 |  |  | 0 |  |  | 3 | |  | 3 | |  |  |
| 5 |  | EE-301 |  | Electric Circuit theory | 3 |  | 1 |  |  | 0 |  |  | 4 | |  | 4 | |  |  |
| 6 |  | EE-302 |  | Field theory | 3 |  | 1 |  |  | 0 |  |  | 4 | |  | 4 | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 21 | |  | 20 | |  |  |
| **Practical / Sessional:** | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Sl.** |  | **CODE** |  | **Paper** | **Contacts periods Per** | | | | | | |  |  | **Total** |  | **Credits** | |  |  |
| **No.** |  |  |  |  |  |  | **weeks** | | |  |  |  | **Contact Hrs** | |  |  |  |  |  |
|  |  |  |  |  |  | **L** |  | **T** |  | **P** | |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  | EC(EE)391 |  | Analog & Digital Electronic circuit | 0 |  | 0 |  |  | 3 |  |  | 3 | |  | 2 | |  |  |
| 2 |  | M (CS )391 |  | Numerical Methods | 0 |  | 0 |  |  | 2 |  |  | 2 | |  | 1 | |  |  |
| 3 |  | EE-391 |  | Electric Circuit Theory | 0 |  | 0 |  |  | 3 |  |  | 3 | |  | 2 | |  |  |
| 4 |  | HU-381 |  | TECHNICAL REPORT WRITING & | 0 |  | 0 |  |  | 3 |  |  | 3 | |  | 2 | |  |  |
|  |  |  |  | LANGUAGE LABORATORY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | PRACTICE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 |  | GS-381 |  | General Studies - I | 3 |  | 1 |  |  | 0 |  |  | 4 |  | 4 |  |  |  |  |
|  |  |  |  | Total of Practical / Sessional |  |  |  |  |  |  |  |  | 15 | |  | 11 | |  |  |
| TOTAL OF SEMESTER: | | |  |  |  |  |  |  |  |  |  |  | 36 | |  | 31 | |  |  |
| **Theory**: | |  |  | **4th Semester** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Sl.** |  | **CODE** |  | **Paper** |  | **Contacts periods Per** | | | | | | |  | **Total** | |  | **Credits** | |  |
| **No.** |  |  |  |  |  |  |  | **weeks** | |  |  |  |  | **Contact Hrs** | |  |  |  |  |
|  |  |  |  |  |  | **L** |  | **T** | |  | **P** | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  | HU-401 |  | Values and Ethics in Profession |  | 3 |  | 0 |  |  | 0 |  |  | 3 |  |  | 3 |  |  |
| 2 |  | ME(EE)411 |  | Thermal Power Engineering |  | 3 |  | 0 |  |  | 0 |  |  | 3 |  |  | 3 |  |  |
| 3 |  | CH-401 |  | Basic Environmental Engineering & |  | 3 |  | 0 |  |  | 0 |  |  | 3 |  |  | 3 |  |  |
|  |  |  |  | Elementary Biology |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  | EE-401 |  | Electric Machine-I |  | 3 |  | 1 |  |  | 0 |  |  | 4 |  |  | 4 |  |  |
| 5 |  | EE-402 |  | Electrical & Electronic measurement |  | 3 |  | 0 |  |  | 0 |  |  | 3 |  |  | 3 |  |  |
| 6 |  | EE-403 |  | Computer Organisation |  | 3 |  | 1 |  |  |  | 0 |  | 4 |  |  | 4 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 20 |  |  | 20 |  |  |
| **Practical / Sessional:** | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Sl.** |  | **CODE** |  | **Paper** |  | **Contacts periods Per** | | | | | | |  | **Total** | |  | **Credits** | |  |
| **No.** |  |  |  |  |  |  |  | **weeks** | |  |  |  |  | **Contact Hrs** | |  |  |  |  |
|  |  |  |  |  |  | **L** |  | **T** | |  | **P** | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  | ME(EE)481 |  | Thermal power Engineering Lab |  | 0 |  | 0 |  |  | 3 |  |  | 3 |  |  | 2 |  |  |
| 2 |  | EE-491 |  | Electric Machine-I |  | 0 |  | 0 |  |  | 3 |  |  | 3 |  |  | 2 |  |  |
| 3 |  | EE-492 |  | Electrical & Electronic measurement |  | 0 |  | 0 |  |  | 3 |  |  | 3 |  |  | 2 |  |  |
| 4 |  | EE-493 |  | Computer Organization |  | 0 |  | 0 |  |  |  | 3 |  | 3 |  |  | 2 |  |  |
| 5 |  | GS-481 |  | General Studies - II |  | 3 |  | 1 |  |  | 0 |  |  | 4 |  |  | 4 |  |  |
|  |  |  |  | Total of Practical / Sessional |  |  |  |  |  |  |  |  |  | 16 |  |  | 12 |  |  |
| TOTAL OF SEMESTER: | | |  |  |  |  |  |  |  |  |  |  |  | 36 |  |  | 32 |  |  |

**Syllabus for B.Tech(Electrical Engineering) Up to Fourth Year**



**5th Semester**

**Theory**:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.** | **CODE** |  | **Paper** | **Contacts periods Per** | | | **Total Contact** | **Credits** |  |  |
| **No.** |  |  |  |  | **weeks** |  | **Hrs** |  |  |  |
|  |  |  |  | **L** | **T** | **P** |  |  |  |  |
|  |  |  | |  |  |  |  |  |  |  |
| 1 | HU-501 | Economics for Engineers | | 3 | 0 | 0 | 3 | 3 |  |  |
| 2 | EE-501 | Electric machine-II | | 3 | 1 | 0 | 4 | 4 |  |  |
| 3 | EE-502 | Power system-I | | 3 | 1 | 0 | 4 | 4 |  |  |
| 4 | EE-503 | Control system-I | | 3 | 1 | 0 | 4 | 4 |  |  |
| 5 | EE-504 | Signals & Systems | | 3 | 0 | 0 | 3 | 3 |  |  |
| 6 | EE-505 | A. Data structure & algorithm | | 3 | 0 | 0 | 3 | 3 |  |  |
|  |  | B. Computer Organization | |  |  |  |  |  |  |  |
|  |  | C. Micro Processor & Micro controller | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 21 | 21 |  |  |
| **Practical** | **/ Sessional:** |  |  |  |  |  |  |  |  |  |
| **Sl.** | **CODE** |  | **Paper** | **Contacts periods Per** | | | **Total Contact** | **Credits** |  |  |
| **No.** |  |  |  |  | **weeks** |  | **Hrs** |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | **L** | **T** | **P** |  |  |  |  |
|  |  |  | |  |  |  |  |  |  |  |
| 1 | EE-591 | Electric machine-II | | 0 | 0 | 3 | 3 | 2 |  |  |
| 2 | EE-592 | Power system-I | | 0 | 0 | 3 | 3 | 2 |  |  |
| 3 | EE-593 | Control system-I | | 0 | 0 | 3 | 3 | 2 |  |  |
| 4 | EE-594 | a. Data structure & algorithm | | 0 | 0 | 3 | 3 | 2 |  |  |
|  |  | b. Computer Organization | |  |  |  |  |  |  |  |
|  |  | c. Micro Processor & Microcontroller | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 5 | EE-581 | Seminar |  | 0 | 0 | 3 | 3 | 2 |  |  |
| 6 | GS-581 | General Studies - III | | 3 | 1 | 0 | 4 | 4 |  |  |
|  |  | Total of Practical / Sessional | |  |  |  | 19 | 14 |  |  |
| TOTAL OF SEMESTER: | |  |  |  |  |  | 40 | 35 |  |  |
| **Theory**: |  |  | **EE 6th Semester** |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| **Sl.** | **CODE** |  | **Paper** | **Contact periods Per week** | | | **Total Contact** | **Credits** |  |  |
| **No.** |  |  |  |  |  |  | **Hrs** |  |  |  |
|  |  |  | **L** | **T** | **P** |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  | |  |  |  |  |  |  |  |
| 1 | HU-601 | Principle of Management | | 2 | 0 | 0 | 2 | 2 |  |  |
| 2 | EE-601 | Control System-II | | 3 | 1 | 0 | 4 | 4 |  |  |
| 3 | EE-602 | Power System-II | | 3 | 1 | 0 | 4 | 4 |  |  |
| 4 | EE-603 | Power Electronics | | 3 | 1 | 0 | 4 | 4 |  |  |
|  |  | a. | Software Engineering |  |  |  |  |  |  |  |
|  |  | b. | Data Base Management System |  |  |  |  |  |  |  |
| 5 | EE-604 | c. | Object Oriented Programming |  |  |  |  |  |  |  |
|  |  | d. | Embedded Systems. | 3 | 0 | 0 | 3 | 3 |  |  |
|  |  | a. | Digital Signal Processing |  |  |  |  |  |  |  |
|  |  | b. | Communication Engineering. |  |  |  |  |  |  |  |
| 6 | EE-605 | c. | VLSI & Microelectronics | 3 | 0 |  | 3 | 3 |  |  |
|  |  |  |  |  |  |  | 20 | 20 |  |  |
| **Practical / Sessional:** | |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | | |  |  |  |  |
| **Sl.** | **CODE** |  | **Paper** | **Contact period Per week** | | | **Total Contact** | **Credits** |  |  |
| **No.** |  |  |  |  |  |  | **Hrs** |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | **L** | **T** | **P** |  |  |  |  |
|  |  |  | |  |  |  |  |  |  |  |
| 1 | EE-691 | Control System-II | | 0 | 0 | 3 | 3 | 2 |  |  |
| 2 | EE-692 | Power System-II | | 0 | 0 | 3 | 3 | 2 |  |  |
| 3 | EE-693 | Power Electronics | | 0 | 0 | 3 | 3 | 2 |  |  |
| 4 | EE-694 | a. | Software Engineering | 0 | 0 | 3 | 3 | 2 |  |  |
|  |  | b. | Data Base Management System |  |  |  |  |  |  |  |
|  |  | c. | Object Oriented Programming |  |  |  |  |  |  |  |
|  |  | d. Embedded Systems | |  |  |  |  |  |  |  |
| 5 | GS-681 | GeneralStudies - VI | | 3 | 1 | 0 | 4 | 4 |  |  |
|  |  | Total of Practical / Sessional | |  |  |  | 16 | 12 |  |  |
| TOTAL OF SEMESTER: | |  |  |  |  |  | 36 | 32 |  |  |

Industrial training conducted after 6th Semester.

**Syllabus for B.Tech(Electrical Engineering) Up to Fourth Year**



**7th Semester**

**Theory**:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.** | **CODE** | **Paper** | **Contacts periods Per** | | | **Total Contact** | **Credits** |  |
| **No.** |  |  |  | **weeks** |  | **Hrs** |  |  |
|  |  |  | **L** | **T** | **P** |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1 | EE-701 | Electric drive | 4 | 0 | 0 | 4 | 4 |  |
| 2 | EE-702 | Utilization of Electric power | 3 | 1 | 0 | 4 | 4 |  |
| 3 | EE-703 | A. Power system-III | 3 | 0 | 0 | 3 | 3 |  |
|  |  | B. Control system-III |  |  |  |  |  |  |
|  |  | C. Electric Machine-III |  |  |  |  |  |  |
| 4 | EE-704 | A. High voltage Engineering | 3 | 0 | 0 | 3 | 3 |  |
|  |  | B. Power Plant Engineering |  |  |  |  |  |  |
|  |  | C. Power generation and economics |  |  |  |  |  |  |
|  |  | D. Renewable & Non conventional Energy |  |  |  |  |  |  |
| 5 | EE-705 | A.Computer Network | 3 | 0 | 0 | 3 | 3 |  |
|  |  | B. AI & Soft Computing |  |  |  |  |  |  |
|  |  | C. Digital Communication |  |  |  |  |  |  |
|  |  | D. Digital Image Processing |  |  |  |  |  |  |
|  |  |  |  |  |  | 17 | 17 |  |
| **Practical / Sessional:** | |  |  |  |  |  |  |  |
| **Sl.** | **CODE** | **Paper** | **Contacts periods Per** | | | **Total Contact** | **Credits** |  |
| **No.** |  |  |  | **weeks** |  | **Hrs** |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  | **L** | **T** | **P** |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1 | EE-781 | Seminar on industrial training | 0 | 0 | 3 | 3 | 2 |  |
| 2 | EE-791 | Electric Drive | 0 | 0 | 3 | 3 | 2 |  |
| 3 | EE-792 | A.Computer Network | 0 | 0 | 3 | 3 | 2 |  |
|  |  | B. AI & Soft Computing |  |  |  |  |  |  |
|  |  | C.Digital Communication |  |  |  |  |  |  |
|  |  | D. Digital Image Processing |  |  |  |  |  |  |
| 4 | EE-782 | Electrical system design-I | 0 | 0 | 3 | 3 | 2 |  |
| 5 | EE-783 | Project-I | 0 | 0 | 3 | 3 | 2 |  |
| 6 | GS-781 | General Studies - VII | 3 | 1 | 0 | 4 | 4 |  |
|  |  | Total of Practical / Sessional |  |  |  | 13 | 14 |  |
| TOTAL OF SEMESTER: | |  | 18 | 02 | 09 | 33 | 31 |  |
| **Theory**: |  | **8th Semester** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Sl.** | **CODE** | **Paper** | **Contacts periods Per** | | | **Total Contact** | **Credits** |  |
| **No.** |  |  |  | **weeks** |  | **Hrs** |  |  |
|  |  |  | **L** | **T** | **P** |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1 | HU-801 | Organizational Behaviour | 2 | 0 | 0 | 2 | 2 |  |
| 2 | EE-801 | A. HVDC transmission | 3 | 0 | 0 | 3 | 3 |  |
|  |  | B. Illumination Engineering |  |  |  |  |  |  |
|  |  | C. Energy management & audit |  |  |  |  |  |  |
|  |  | D. DIGITAL SPEECH SIGNAL |  |  |  |  |  |  |
|  |  | PROCESSING |  |  |  |  |  |  |
| 3 | EE-802 | A. Power plant instrumentation & Control | 3 | 0 | 0 | 3 | 3 |  |
|  |  | B. Sensors & Transducers |  |  |  |  |  |  |
|  |  | C. Biomedical Instrumentation |  |  |  |  |  |  |
|  |  | D. Process control |  |  |  |  |  |  |
|  |  | TOTAL |  |  |  | 08 | 08 |  |
| **Practical** | **/ Sessional:** |  |  |  |  |  |  |  |
| **Sl.** | **CODE** | **Paper** | **Contacts periods Per** | | | **Total Contact** | **Credits** |  |
| **No.** |  |  |  | **weeks** |  | **Hrs** |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  | **L** | **T** | **P** |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1 | EE-881 | Project | 0 | 0 | 12 | 12 | 6 |  |
| 2 | EE-882 | Electrical system Lab-II | 0 | 0 | 6 | 6 | 4 |  |
| 3 | EE-883 | Grand Viva |  |  |  |  | 3 |  |
| 4 | GS-881 | General Studies - VIII | 3 | 1 | 0 | 4 | 4 |  |
|  |  | Total of Practical / Sessional |  |  |  | 22 | 17 |  |
|  |  |  |  |  |  |  |  |  |
|  |  | TOTAL SEMESTER |  |  |  | 30 | 25 |  |