

STUDY AND EVALUATION SCHEME FOR LATERAL ENTRY AND ITI PASSED STUDENTS DIPLOMA PROGRAMME IN ELECTRICAL ENGINEERING(INDUSTRIAL CONTROL)

THIRD SEMESTER

| Sr. No. | SUBJECTS | STUDY SCHEME | | | Credits | MARKS IN EVALUATION SCHEME | | | | | | | | Total Marks of Internal & External |
|--|--|--------------|----------|-----------|-----------|----------------------------|------------|------------|---------------------|----------|------------|----------|------------|------------------------------------|
| | | Periods/Week | | | | INTERNAL ASSESSMENT | | | EXTERNAL ASSESSMENT | | | | | |
| | | L | T | P | | Th | Pr | Tot | Th | Hrs | Pr | Hrs | Tot | |
| 3.1 | *Applied Mathematics -III | 5 | - | - | 4 | 20 | - | 20 | 50 | 2 ½ | - | - | 50 | 70 |
| 3.2 | Electrical Instrumentation and Measurement | 6 | - | 4 | 6 | 20 | 20 | 40 | 50 | 2 ½ | 40 | 3 | 90 | 130 |
| 3.3 | Electrical and Electronics Engineering Materials | 6 | - | - | 5 | 20 | - | 20 | 50 | 2 ½ | - | - | 50 | 70 |
| 3.4 | Digital Principles And Electronics | 5 | - | 4 | 5 | 20 | 20 | 40 | 50 | 2 ½ | 40 | 3 | 90 | 130 |
| 3.5 | Electrical Machine - I | 6 | - | 4 | 6 | 20 | 20 | 40 | 50 | 2 ½ | 40 | 3 | 90 | 130 |
| 3.6 | *Environmental Studies | 3 | - | 2 | 3 | 20 | 10 | 30 | 50 | 2 ½ | 20 | 3 | 70 | 100 |
| #Student Centered Activities including Energy Conservation Awareness | | - | - | 3 | 2 | | 30 | 30 | - | - | - | - | - | 30 |
| Total | | 31 | - | 17 | 31 | 120 | 100 | 220 | 300 | - | 140 | - | 440 | 660 |

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities and self study etc.

A. COMPULSORY SUBJECT OF I & II SEMESTER ELECTRICAL ENGINEERING TO BE TAUGHT IN III & IV SEMESTER TO ITI PASSED STUDENTS OF TRADES ARE AS FOLLOWS :

I. WIREMAN II. ELECTRICIAN III. ELECTROPLATER IV. ELECTRICAL SECTOR

| Sr. No. | SUBJECTS | STUDY SCHEME Periods/Week | | | Credits | MARKS IN EVALUATION SCHEME | | | | | | | | | | Total Marks of Internal & External |
|---------|--------------------------|---------------------------|----------|----------|-----------|----------------------------|----------|----------|---------------------|-----|-----------|-----|------------|------------|--|------------------------------------|
| | | L | T | P | | INTERNAL ASSESSMENT | | | EXTERNAL ASSESSMENT | | | | | | | |
| | | | | | | Th | Pr | Tot | Th | Hrs | Pr | Hrs | Tot | | | |
| 1.1 | *Communication Skills-I | 4 | - | 2 | 4 | - | - | - | 50 | 2 ½ | 20 | 3 | 70 | 70 | | |
| 1.2 | *Applied Mathematics - I | 5 | - | - | 4 | - | - | - | 50 | 2 ½ | - | - | 50 | 50 | | |
| 1.3 | *Applied Physics – I | 5 | - | 2 | 5 | - | - | - | 50 | 2 ½ | 20 | 3 | 70 | 70 | | |
| 1.4 | *Applied Chemistry | 5 | - | 2 | 5 | - | - | - | 50 | 2 ½ | 20 | 3 | 70 | 70 | | |
| | | 19 | - | 6 | 18 | - | - | - | 200 | | 60 | | 260 | 260 | | |

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures, self study, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management and safety etc.

(*) It is compulsory to appear & to pass in examination From III Semester To VI Semester, But credit/marks will not be included for division and percentage of obtained marks.

(*) Four Semester (Two Years) of Extra Time will be given after diploma curriculum period (If Required) to pass the above paper (1.1 To 1.4 and 2.1 to 2.2) examination (As Per G. O. No. 2221/16-Pra. Shi.-3-2009 Dated 28-08-2009) & Revised G.O. No. 2704/16-Pra.Shi.-3-2013-46(8)/2002 Dated 09-01-2013 and B.T.E Order No. Pra.Shi.Pa/C.D.C./2022/872021 Dated 21.02.22

FOURTH SEMESTER ELECTRICAL ENGINEERING (INDUSTRIAL CONTROL)

| Sr. No. | SUBJECTS | STUDY SCHEME | | | Credits | MARKS IN EVALUATION SCHEME | | | | | | | | | Total Marks of Internal & External |
|------------------------------|---|--------------|----------|-----------|-----------|----------------------------|------------|------------|---------------------|----------|------------|----------|------------|------------|------------------------------------|
| | | Periods/Week | | | | INTERNAL ASSESSMENT | | | EXTERNAL ASSESSMENT | | | | | | |
| | | L | T | P | | Th | Pr | Tot | Th | Hrs | Pr | Hrs | Tot | | |
| 4.1 | *Communication Skill- II | 4 | - | 2 | 4 | 20 | 10 | 30 | 50 | 2 ½ | 20 | 3 | 70 | 100 | |
| 4.2 | Industrial Electronics and Control | 5 | 1 | 4 | 6 | 20 | 20 | 40 | 50 | 2 ½ | 40 | 3 | 90 | 130 | |
| 4.3 | Electrical Design, Drawing and Estimating-I | 3 | - | 8 | 5 | 20 | 20 | 40 | 50 | 3 | 40 | 4 | 90 | 130 | |
| 4.4 | Control System& Process Application | 5 | - | - | 5 | 20 | - | 20 | 50 | 2 ½ | - | - | 50 | 70 | |
| 4.5 | Transmission and Distribution of Electrical Power | 6 | 1 | - | 5 | 20 | - | 20 | 50 | 2 ½ | - | - | 50 | 70 | |
| 4.6 | *Energy Conservation | 3 | - | 2 | 3 | 20 | 10 | 30 | 50 | 2 ½ | 20 | 3 | 70 | 100 | |
| 4.7 | Universal Human Values | 2 | - | 1 | 1 | - | 20 | 20 | - | - | 30 | 3 | 30 | 50 | |
| # Student Centred Activities | | - | - | 1 | 1 | - | 30 | 30 | - | - | - | - | - | 30 | |
| Total | | 28 | 2 | 18 | 30 | 120 | 110 | 230 | 300 | - | 150 | - | 450 | 680 | |

Note: Industrial Training for 4 weeks after fourth semester during summer vacation.

Student Centred Activities will comprise of co-curricular activities like extension lectures, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities and self study etc.

B. COMPULSORY SUBJECT OF I & II SEMESTER ELECTRICAL ENGINEERING TO BE TAUGHT IN III & IV SEMESTER TO ITI PASSED STUDENTS OF TRADES ARE AS FOLLOWS :

I. WIREMAN II. ELECTRICIAN III. ELECTROPLATER IV. ELECTRICAL SECTOR

| Sr. No. | SUBJECTS | STUDY SCHEME Periods/Week | | | Credits | MARKS IN EVALUATION SCHEME | | | | | | | | Total Marks of Internal & External |
|--------------|---------------------------|------------------------------|----------|----------|----------|----------------------------|----------|----------|---------------------|----------|-----------|----------|------------|------------------------------------|
| | | L | T | P | | INTERNAL ASSESSMENT | | | EXTERNAL ASSESSMENT | | | | | |
| | | | | | | Th | Pr | Tot | Th | Hrs | Pr | Hrs | Tot | |
| 2.1 | *Applied Mathematics - II | 5 | - | - | 4 | - | - | - | 50 | 2 ½ | - | - | 50 | 50 |
| 2.2 | *Applied Physics -II | 5 | - | 2 | 5 | - | - | - | 50 | 2 ½ | 20 | 3 | 70 | 70 |
| Total | | 10 | - | 2 | 9 | - | - | - | 100 | - | 20 | - | 120 | 120 |

* Common with other diploma programme

Student Centred Activities will comprise of co-curricular activities like extension lectures, self study, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management and safety etc.

Industrial training of 4 weeks duration to be organised after 4th semester exams

(*) It is compulsory to appear & to pass in examination From III Semester To VI Semester, But credit/marks will not be included for division and percentage of obtained marks.

(*) Four Semester (Two Years) of Extra Time will be given after diploma curriculum period (If Required) to pass the above paper (1.1 To 1.4 and 2.1 to 2.2) examination (As Per G. O. No. 2221/16-Pra. Shi.-3-2009 Dated 28-08-2009) & Revised G.O. No. 2704/16-Pra.Shi.-3-2013-46(8)/2002 Dated 09-01-2013 and B.T.E Order No. Pra.Shi.Pa/C.D.C./2022/872021 Dated 21.02.22

FIFTH SEMESTER ELECTRICAL ENGINEERING (INDUSTRIAL CONTROL)

| Sr. No. | SUBJECTS | STUDY SCHEME | | | Credits | MARKS IN EVALUATION SCHEME | | | | | | | | Total Marks of Internal & External |
|----------------------------------|---|--------------|----------|-----------|-----------|----------------------------|------------|------------|---------------------|----------|------------|----------|------------|------------------------------------|
| | | Periods/Week | | | | INTERNAL ASSESSMENT | | | EXTERNAL ASSESSMENT | | | | | |
| | | L | T | P | | Th | Pr | Tot | Th | Hrs | Pr | Hrs | Tot | |
| - | Industrial Training | - | - | - | 2 | - | | | - | - | 50 | 3 | 50 | 50 |
| 5.1 | *Industrial Management and Entrepreneurship Development | 5 | - | - | 4 | 20 | - | 20 | 50 | 2 ½ | - | - | 50 | 70 |
| 5.2 | Switchgear and Protection | 5 | 1 | - | 5 | 20 | - | 20 | 50 | 2 ½ | - | - | 50 | 70 |
| 5.3 | PLC, Microcontroller and SCADA | 6 | - | 6 | 7 | 20 | 35 | 55 | 50 | 2 ½ | 70 | 3 | 120 | 175 |
| 5.4 | Electrical Machine – II | 6 | 1 | 6 | 8 | 20 | 35 | 55 | 50 | 2 ½ | 70 | 3 | 120 | 175 |
| 5.5 | INDUSTRIAL CONTROL | 6 | - | 4 | 7 | 20 | 30 | 50 | 50 | 2 ½ | 50 | 3 | 100 | 150 |
| #Student Centred Activities(SCA) | | - | - | 2 | 2 | - | 30 | 30 | - | - | - | - | - | 30 |
| Total | | 28 | 2 | 18 | 35 | 100 | 130 | 230 | 250 | - | 240 | - | 490 | 690 |

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities and self study etc.

SIXTH SEMESTER ELECTRICAL ENGINEERING (INDUSTRIAL CONTROL)

| Sr. No. | SUBJECTS | STUDY SCHEME | | | Credits | MARKS IN EVALUATION SCHEME | | | | | | | | Total Marks of Internal & External |
|-----------------------------|--|--------------|----------|-----------|-----------|----------------------------|------------|------------|---------------------|----------|------------|----------|------------|------------------------------------|
| | | Periods/Week | | | | INTERNAL ASSESSMENT | | | EXTERNAL ASSESSMENT | | | | | |
| | | L | T | P | | Th | Pr | Tot | Th | Hrs | Pr | Hrs | Tot | |
| 6.1 | Installation, Maintenance and Repair of Electrical Equipment | 6 | - | 6 | 7 | 20 | 35 | 55 | 50 | 2 ½ | 70 | 3 | 120 | 175 |
| 6.2 | MICROPROCESSORS DEVELOPMENT SYSTEM | 6 | - | 4 | 7 | 20 | 20 | 40 | 50 | 3 | 40 | 4 | 90 | 130 |
| 6.3 | Utilization of Electrical Energy | 5 | - | - | 4 | 20 | - | 20 | 50 | 2.5 | - | - | 50 | 70 |
| 6.4 | Application of Computer Software in Electrical Engineering | - | - | 6 | 2 | - | 20 | 20 | - | - | 30 | 3 | 30 | 50 |
| 6.5 | Project Work | - | - | 12 | 5 | - | 50 | 50 | - | - | 100 | 3 | 100 | 150 |
| #Student Centred Activities | | - | - | 4 | 2 | - | 30 | 30 | - | - | - | - | - | 30 |
| Total | | 17 | - | 32 | 27 | 60 | 155 | 215 | 150 | - | 240 | - | 390 | 605 |

Student Centred Activities will comprise of co-curricular activities like extension lectures, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities and self study etc.