

DEPARTMENT OF TECHNICAL EDUCATION

From
The Commissioner of Technical Education
Directorate of Technical Education
Guindy
Chennai-600025

To
The Principals of Government and
Government Aided and
Self Financing Polytechnic Colleges

Letter No: 47178/Y3/CDC/2011 dated 31.8.2012

Sir/Madam

Sub: L-Scheme II, III and IV Year Diploma in Engineering and
Technology (**Part-Time and Sandwich**) – relevant papers – Regarding.

The syllabus for the L-Scheme II, III and IV Year Diploma in Engineering and
Technology (**Part-Time and Sandwich**) have been revised and implemented for the
students admitted from the academic year 2011-12. The relevant papers for 'K-Scheme
to 'L-Scheme has been enclosed herewith.

All the Principals of Government, Government Aided and Self Financing
Polytechnic Colleges are requested to follow this meticulously and the same has to be
made available to the concerned HODs, Staff and the students.

Encl: Annexure

(Sd/-)

Commissioner of Technical Education

Copy to:

The Additional Director of Technical Education (Exam), DOTE, Chennai-25
The Assistant Director(Exam) , DOTE, Chennai-25
The Regional Officer II , III ,IV, DOTE, Chennai-25
The Technical Assistant (Evaluation)/Computer Center, DOTE, Chennai-25
The Technical Assistant (Mechanical) , DOTE, Chennai-25

**DIPLOMA IN CIVIL ENGINEERING (PART-TIME)
ALTERNATIVE PAPERS IN L-SCHEME FOR K-SCHEME**

**III SEMESTER
(With effect from October 2012)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|-----------------------------------|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11031 | Engineering Mechanics | 21031 | Engineering Mechanics |
| 11033 | Surveying | 21043 | Surveying II (w.e.f April 2013) |
| 12005 | Engineering Graphics (first year) | 20026 | Engineering Graphics-II (w.e.f April 2013) |
| 11035 | Material Testing Lab Practice– I | 21035 | Material Testing Lab I |
| 11036 | Surveying Practice I | 21036 | Surveying Practice I |

**IV SEMESTER
(With effect from April 2013)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|-------------------------------------|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11032 | Construction Materials and Practice | 21032 | Construction Materials and Construction Practice |
| 11043 | Transportation Engineering | 21042 | Transportation Engineering (w.e.f October 2013) |
| 11034 | Civil Engineering Drawing I | 21034 | Civil Engineering Drawing I |
| 11046 | Surveying Practice II | 21046 | Surveying Practice II |
| 12008 | Computer Application Lab | | No Alternative |

V SEMESTER
(With effect from October 2013)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|------------------------------------|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11041 | Theory of Structures | 21041 | Theory of Structures |
| 11042 | Environmental Engineering | 21052 | Environmental Engineering and Pollution Control (w.e.f October 2014) |
| 11044 | Material Testing Lab Practice - II | 21045 | Material Testing Lab II |
| 11011 | English Communication Practical | 20002 | Communication and Life Skills Practical (w.e.f October 2014) |

VI SEMESTER
(With effect from April 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11051 | Structural Engineering | 21051 | Structural Engineering |
| 11071 | Elective Theory I a. Concrete Technology and Advanced Construction | 21071 | Advanced Construction Technology |
| 11072 | b. Elements of Interior Design | 21281 | Elements of Interior Design |
| 11045 | CAD in Civil Engineering Drawing Practice – I | 21056 | CAD In Civil Engineering Drawing II (w.e.f.October 2014) |
| 11055 | Construction Lab Practice | 21055 | Construction Practice Lab |

VII SEMESTER
(With effect from October 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11052 | Quantity Surveying | 21044 | Estimating and Costing I |
| 11062 | Hydraulics | 21062 | Hydraulics (w.e.f April 2015) |
| 11064 | Hydraulics and Plumbing Lab Practice | 21065 | Hydraulics and Plumbing Lab (w.e.f April 2015) |
| 11054 | CAD in Civil Engineering Drawing Practice – II | 21056 | CAD In Civil Engineering Drawing II |

VIII SEMESTER
(With effect from April 2015)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11061 | Construction Management with MIS | 21061 | Construction Management with MIS |
| 11081 | Elective Theory II a. Town Planning | 21082 | Town Planning |
| 11082 | b. Water Resource Management | 21074 | Water Resource Management |
| 11065 | Computer Applications in Civil Engineering | 21066 | Computer Applications In Civil Engineering |
| 11066 | Project Work | 21067 | Project work |

**DIPLOMA IN CIVIL ENGINEERING (SANDWICH)
ALTERNATIVE PAPERS IN L-SCHEME FOR K-SCHEME**

**III SEMESTER
(With effect from October 2012)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|-----------------------------------|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11031 | Engineering Mechanics | 21031 | Engineering Mechanics |
| 11032 | Construction Materials & Practice | 21032 | Construction Materials & Construction Practice |
| 11033 | Surveying | 21043 | Surveying – II (w.e.f October 2013) |
| 11034 | Civil Engineering Drawing- I | 21034 | Civil Engineering Drawing- I |
| 11043 | Transportation Engineering | 21042 | Transportation Engineering |
| 11035 | Material Testing Lab practice I | 21035 | Material Testing Lab I |
| 11036 | Surveying Practice I | 21036 | Surveying Practice I |

**IV SEMESTER
(With effect from April 2013)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|--------------------------------------|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11045 | CAD in Civil Engineering Drawing Practice - I | 21047 | CAD in Civil Engineering Drawing - I |
| 11047 | In plant Training | 21091 | Industrial Training -I |

V SEMESTER
(With effect from October 2013)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11041 | Theory of Structures | 21041 | Theory of Structures |
| 11062 | Hydraulics | 21062 | Hydraulics (w.e.f April 2014) |
| 11052 | Quantity Surveying | 21044 | Estimating & Costing - I |
| 11071 | Elective Theory I a. Concrete Technology and Advanced Construction | 21071 | Advanced Construction Technology |
| 11072 | b. Elements of Interior Design | 21281 | Elements of Interior Design (w.e.f April 2014) |
| 11044 | Material Testing Lab practice II | 21045 | Material Testing Lab II |
| 11046 | Surveying Practice II | 21046 | Surveying Practice II |
| 11054 | CAD in Civil Engineering Drawing Practice - II | 21056 | CAD in Civil Engineering Drawing - II |
| 11064 | Hydraulics and Plumbing Lab | 21065 | Hydraulics and Plumbing Lab (w.e.f April 2014) |

VI SEMESTER
(With effect from April 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11051 | Structural Engineering | 21051 | Structural Engineering |
| 11042 | Environmental Engineering | 21052 | Environmental Engineering and Pollution Control |
| 11061 | Construction Management with MIS | 21061 | Construction Management with MIS |
| 11081 | Elective Theory II a. Town Planning | 21082 | Town Planning |
| 11082 | b. Water Resource Management | 21074 | Water Resource Management |
| 11065 | Computer Application in Civil Engineering | 21066 | Computer Application in Civil Engineering |
| 11055 | Construction Lab Practice | 21055 | Construction Practice Lab (w.e.f October 2014) |
| 11011 | English Communication Practical | 20002 | Communication and Life Skills Practical |

VII SEMESTER
(With effect from October 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|----------------------------|---------------------|----------------------------|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 11066 | Project Work | 21067 | Project Work |
| 11074 | In plant Training | 21092 | Industrial Training -II |

**DIPLOMA IN MECHANICAL ENGINEERING (PART-TIME)
ALTERNATIVE PAPERS IN L-SCHEME FOR K-SCHEME**

**III SEMESTER
(With effect from October 2012)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12005 | Engineering Graphics | 20026 | Engineering Graphics-II (w.e.f April 2013) |
| 12031 | Mechanics of Materials | 22031 | Strength of Materials |
| 12032 | Manufacturing Process | 22041 | Manufacturing Technology – I (w.e.f October 2013) |
| 12008 | Computer Applications Lab | | No Alternative |
| 12036 | Work shop – I (Smithy, Foundry, Welding) | 22045 | Manufacturing Technology – I Practical (w.e.f October 2013) |

**IV SEMESTER
(With effect from April 2013)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12033 | Fluid mechanics and fluid power | 22032 | Fluid Mechanics & Fluid Power |
| 12041 | Applied thermodynamics | 22042 | Thermal Engineering – I |
| 12034 | Machine Drawing - CAD | 22044 | Computer Aided Machine Drawing Practical (w.e.f October 2013) |
| 12035 | Mechanics of Material and fluid mechanics lab | 22035 | Mechanical Testing & Quality Control Practical |
| 12044 | Thermodynamics Lab | 22055 | Thermal Engineering Practical (w.e.f. April 2014) |

V SEMESTER
(With effect from October 2013)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12042 | Machine shop Technology | 22052 | Manufacturing Technology – II (w.e.f April 2014) |
| 12043 | Electrical and Electronics Engineering | 22043 | Electrical Drives & Control |
| 12045 | Electrical and Electronics Engineering Lab | 22047 | Electrical Drives & Control Practical |
| 12046 | Workshop – II(Turning, Drilling and Shaping) | | No alternative |

VI SEMESTER
(With effect from April 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12051 | Design of Machine elements | 22054 | Design of Machine Elements (w.e.f October 2014) |
| 12052 | Thermal Engineering | 22051 | Thermal Engineering – II |
| 11011 | English Communication Practical | 20002 | Communication & Life Skills Practical ** (w.e.f October 2014) |
| 12056 | Workshop III(Slotting, Planning, drilling, grinding and CNC Machines) | 22056 | Manufacturing Technology – II Practical |

VII SEMESTER
(With effect from October 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12071 | Refrigeration and Air Conditioning | 22083 | Refrigeration and Air-conditioning (w.e.f April 2015) |
| 12072 | Metrology, Machine Tool Maintenance & Testing | | No Alternative |
| 12062 | Computer Aided Design & Manufacturing | 22062 | Computer Integrated Manufacturing |
| 12073 | Refrigeration and Air Conditioning Lab | 22087 | Refrigeration and Air-conditioning Practical (w.e.f April 2015) |
| 12074 | Metrology, Machine Tool Maintenance & Testing Lab | 22046 | Metrology & Measurement and Machine Tool Testing Practical |
| 12064 | Computer Aided Design & Manufacturing Practical | 22064 | Computer Integrated Manufacturing Practical |

VIII SEMESTER
(With effect from April 2015)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|---------------------------------------|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12061 | Industrial Engineering & Management | 22061 | Industrial Engineering and Management |
| 12081 | Automobile Technology | 22081 | Automobile Engineering |
| 12082 | Mechatronics | 22082 | Robotics |
| 12083 | Automobile Technology Lab | 22085 | Automobile Engineering Practical |
| 12084 | Mechatronics Lab | 22086 | Robotics Practical |
| 12066 | Project work, Entrepreneurship, Environmental & Disaster Management | 22067 | Project Work |

**DIPLOMA IN MECHANICAL ENGINEERING (SANDWICH)
ALTERNATIVE PAPERS IN L-SCHEME FOR K-SCHEME**

**III SEMESTER
(With effect from October 2012)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12031 | Mechanics of Materials | 22031 | Strength of Materials |
| 12032 | Manufacturing Process | 22041 | Manufacturing Technology – I (w.e.f April 2013) |
| 12033 | Fluid Mechanics and Fluid Power | 22032 | Fluid Mechanics & Fluid Power |
| 12041 | Applied Thermodynamics | 22042 | Thermal Engineering – I (w.e.f October 2013) |
| 12034 | Machine drawing - CAD | 22044 | Computer Aided Machine Drawing Practical (w.e.f October 2013) |
| 12035 | Mechanics of Materials and Fluid Mechanics Lab. | 22035 | Mechanical Testing & Quality Control Practical |
| 12044 | Thermodynamics Lab | 22055 | Thermal Engineering Practical (w.e.f October 2013) |

**IV SEMESTER
(With effect from April 2013)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12036 | Workshop I (Smithy, Foundry & Welding) | 22045 | Manufacturing Technology – I Practical |
| 12047 | Industrial training I (Report writing & Viva Voce) | 22091 | Industrial Training I(Report Writing & Viva voce) |

V SEMESTER
(With effect from October 2013)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12042 | Machine shop Technology | 22052 | Manufacturing Technology – II (w.e.f April 2014) |
| 12043 | Electrical and Electronics Engineering | 22043 | Electrical Drives & Control |
| 12052 | Thermal Engineering | 22051 | Thermal Engineering – II |
| 12071 | Refrigeration and Air Conditioning | 22083 | Refrigeration and Air-conditioning (w.e.f October 2014) |
| 12072 | Metrology, Machine Tool Maintenance & Testing | | No Equivalent |
| 12045 | Electrical and Electronics Engineering Practical | 22047 | Electrical Drives & Control Practical |
| 12046 | Workshop – II(Turning, drilling & Shaping) | | No alternative |
| 11011 | English Communication Practical | 20002 | Communication & Life Skills Practical ** (w.e.f. April 2014) |
| 12073 | Refrigeration and Air Conditioning Lab | 22087 | Refrigeration and Air-conditioning Practical (w.e.f October 2014) |
| 12074 | Metrology, Machine Tool Maintenance & Testing Lab | 22046 | Metrology & Measurement and Machine Tool Testing Practical |

VI SEMESTER
(With effect from April 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12051 | Design of Machine Elements | 22054 | Design of Machine Elements |
| 12061 | Industrial Engineering & Management | 22061 | Industrial Engineering and Management |
| 12062 | Computer Aided Design and Manufacturing | 22062 | Computer Integrated Manufacturing |
| 12081 | Automobile Technology | 22081 | Automobile Engineering (w.e.f October 2014) |
| 12082 | Mechatronics | 22082 | Robotics (w.e.f October 2014) |
| 12056 | Workshop – III(Slotting, Planning, Milling, Grinding & CNC Machines) | 22056 | Manufacturing Technology – II Practical |
| 12064 | Computer Aided design and Manufacturing Practical | 22064 | Computer Integrated Manufacturing Practical |
| 12083 | Automobile Technology Lab | 22085 | Automobile Engineering Practical (w.e.f October 2014) |
| 12084 | Mechatronics Lab | 22086 | Robotics Practical (w.e.f October 2014) |

VII SEMESTER
(With effect from October 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 12066 | Project work, Entrepreneurship, Environment and Disaster management | 22067 | Project Work |
| 12067 | Industrial training II (Report writing & Viva voce) | 22092 | Industrial Training II (Report Writing & Viva voce) |

**DIPLOMA IN ELECTRICAL & ELECTRONICS ENGINEERING (SANDWICH)
ALTERNATIVE PAPERS IN L-SCHEME FOR K-SCHEME**

**III SEMESTER
(With effect from October 2012)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13031 | Electrical Circuit Theory | 23031 | Electrical Circuit Theory |
| 13032 | Electrical Machines I | 23032 | Electrical Machines - I |
| 14031 | Electronic Devices & Circuits | 24031 | Electronic Devices and Circuits |
| 13042 | Measurements and Instrumentation | 23042 | Measurements and Instruments |
| 13034 | Electrical Circuits and Machines Practical | 23034 | Electrical Circuits and Machines Practical |
| 14034 | Electronic Devices and Circuits Lab | 24034 | Electronic Devices and Circuits Practical |
| 13036 | Workshop Practical | 23036 | Work Shop Practical |

**IV SEMESTER
(With effect from April 2013)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13041 | Electrical Machines II | 23041 | Electrical Machines - II |
| 13045 | Electrical Machines and Instrumentation Practical | 23045 | Electrical Machines and Instrumentation Practical |
| | Inplant Training | 23091 | In Plant Training |

V SEMESTER
(With effect from October 2013)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13051 | Power System I | 23051 | Power System – I |
| 14051 | Microprocessor and Microcontroller | 24052 | Micro Controller (w.e.f April 2014) |
| 14041 | Analog and Digital Electronics | 24043 | Digital Electronics |
| 13071 | Control of Electrical Machines | 23071 | Control of Electrical Machines |
| 13072 | Programmable Logic Controller | 23072 | Programmable Logic Controller |
| 13073 | Electrical Machine Design | 23073 | Electrical Machine Design |
| 14044 | Analog and Digital Electronics Practical | 24046 | Integrated Circuits Practical |
| 14054 | Microprocessor and Microcontroller Practical | 24056 | Micro Controller Practical (w.e.f April 2014) |
| 13074 | Control of Electrical Machines Practical | 23074 | Control of Electrical Machines Practical |
| 13075 | Programmable Logic Controller Practical | 23075 | Programmable Logic Controller Practical |
| 13076 | Electrical Machine Design Practical | 23076 | Electrical Machine Design Practical |

VI SEMESTER
(With effect from April 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13061 | Power System II | 23061 | Power System – II |
| 13062 | Electrical Estimation | 23062 | Electrical Estimation and Energy Auditing |
| 13081 | Power Electronics | 23081 | Power Electronics |
| 14061 | Computer Hardware & Networking | 24682 | Computer Hardware and Networks |
| 14033 | Programming in C & OOPs | 25233 | C Programming |
| 11011 | English Communication Practical | 20002 | Communication and Life Skill Practice |
| 13054 | Wiring and Winding Practical | 23064 | Wiring and Winding Practical |
| 13084 | Power Electronics Practical | 23084 | Power Electronics Practical |
| 14064 | Computer Hardware & Networking Practical | 24684 | Computer Hardware and Networks Practical |
| 14036 | Programming in C & OOPs Practical | 25236 | C Programming Practical |
| 13064 | Computer Aided Electrical Drawing Practical | 23065 | Computer Aided Electrical Drawing |

VII SEMESTER
(With effect from October 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|----------------------------|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13066 | Project work, Entrepreneurship, Environment and Disaster Management | 23067 | Project Work |
| | In plant Training | 23092 | In Plant Training |

**DIPLOMA IN ELECTRICAL & ELECTRONICS ENGINEERING (PART-TIME)
ALTERNATIVE PAPERS IN L-SCHEME FOR K-SCHEME**

**III SEMESTER
(With effect from October 2012)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--------------------------------|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13031 | Electrical Circuit Theory | 23031 | Electrical Circuit Theory |
| 12005 | Engineering Graphics | 20026 | Engineering Graphics-II (w.e.f April 2013) |
| 12008 | Computer Application Practical | | No Alternative |
| 13036 | Workshop Practical | 23036 | Work Shop Practical |

**IV SEMESTER
(With effect from April 2013)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13032 | Electrical Machines-I | 23032 | Electrical Machines - I |
| 14031 | Electronic Devices and Circuits** | 24031 | Electronic Devices and Circuits |
| 13034 | Electrical Circuits and Machines Practical | 23034 | Electrical Circuits and Machines Practical |
| 14034 | Electronic Devices and Circuits Labl** | 24034 | Electronic Devices and Circuits Practical |
| 11011 | English Communication Practical | 20002 | Communication and Life Skill Practice (w.e.f. April 2014) |

V SEMESTER
(With effect from October 2013)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13041 | Electrical Machines-II | 23041 | Electrical Machines - II |
| 13042 | Measurements and Instrumentation | 23042 | Measurements and Instruments |
| 14041 | Analog and Digital Electronics | 24043 | Digital Electronics |
| 13045 | Electrical Machines & Instrumentation Practical | 23045 | Electrical Machines and Instrumentation Practical |
| 14044 | Analog and Digital Electronics Practical | 24046 | Integrated Circuits Practical |

VI SEMESTER
(With effect from April 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13051 | Power System – I | 23051 | Power System – I |
| 13062 | Electrical Estimation | 23062 | Electrical Estimation and Energy Auditing (w.e.f.October 2014) |
| 13054 | Electrical Wiring and Winding Practical | 23064 | Wiring and Winding Practical (w.e.f.April 2015) |
| 13064 | Computer Aided Electrical Drawing (CAED)Practical | 23065 | Computer Aided Electrical Drawing |

VII SEMESTER
(With effect from October 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14051 | Microprocessor and Microcontroller** | 24052 | Micro Controller |
| 13071 | Control of Electrical Machines | 23071 | Control of Electrical Machines |
| 13072 | Programmable Logic Controller | 23072 | Programmable Logic Controller |
| 13073 | Electrical Machine Design | 23073 | Electrical Machine Design |
| 14054 | Microprocessor and Microcontroller Practical** | 24056 | Micro Controller Practical |
| 13074 | Control of Electrical Machines Practical | 23074 | Control of Electrical Machines Practical |
| 13075 | Programmable Logic Controller Practical | 23075 | Programmable Logic Controller Practical |
| 13076 | Electrical Machine Design Practical | 23076 | Electrical Machine Design Practical |

VIII SEMESTER
(With effect from April 2015)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 13061 | Power System - II | 23061 | Power System – II |
| 13081 | Power Electronics | 23081 | Power Electronics |
| 14061 | Computer Hardware and Networking** | 24682 | Computer Hardware and Networks |
| 14033 | “C” Programming and OOPS** | 25233 | C Programming |
| 13084 | Power Electronics Practical | 23084 | Power Electronics Practical |
| 14064 | Computer Hardware and Networking Practical** | 24684 | Computer Hardware and Networks Practical |
| 14036 | “C” Programming and OOPS Practical | 25236 | C Programming Practical |
| 13066 | Project work, Entrepreneurship, Environment and Disaster Management | 23067 | Project Work |

**DIPLOMA IN ELECTRONICS & COMMUNICATION ENGINEERING
(PART-TIME)
ALTERNATIVE PAPERS IN L-SCHEME FOR K-SCHEME**

**III SEMESTER
(With effect from October 2012)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---------------------------------------|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14031 | Electronic Devices and Circuits | 24031 | Electronic Devices and Circuits |
| 14032 | Electric Circuits and Instrumentation | 24032 | Electrical Circuits and Instrumentation |
| 12005 | Engineering Graphics | 20026 | Engineering Graphics-II (w.e.f April 2013) |
| 14034 | Electronic Devices and Circuits Lab | 24034 | Electronic Devices and Circuits Practical |
| 12008 | Computer Application Lab | | No Alternative |

**IV SEMESTER
(With effect from April 2013)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14033 | 'C' Programming & OOPS | 25233 | 'C' Programming |
| 14041 | Analog and Digital Electronics | 24043 | Digital Electronics |
| 14035 | Electric Circuit and Instrumentation Lab | 24035 | Electrical Circuits & Instrumentation Practical |
| 14036 | 'C' Programming Lab | 24036 | Programming in 'C' Practical |
| 14044 | Analog and Digital Electronics Lab | 24046 | Integrated Circuits Practical (w.e.f.October 2013) |

V SEMESTER
(With effect from October 2013)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---------------------------------|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14042 | Industrial Electronics | 24041 | Industrial Electronics |
| 14043 | Communication Engineering | 24042 | Communication Engineering |
| 14045 | IE & CE Lab | 24045 | Industrial Electronics & Communication Engineering Practical |
| 11011 | English Communication Practical | 20002 | Communication Skills and Life Skills Practical (w.e.f April 2014) |

VI SEMESTER
(With effect from April 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--------------------------------------|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14051 | Microprocessor & Microcontroller | 24052 | Micro controller |
| 14052 | Advanced Communication Systems | 24051 | Advanced Communication Systems |
| 14054 | Microprocessor & Microcontroller Lab | 24056 | Microcontroller Practical |
| 14055 | Advanced Communication System Lab | 24055 | Advanced Communication Systems Practical |

VII SEMESTER
(With effect from October 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--------------------------------------|---------------------|---|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14061 | Computer Hardware & Networking | 24682 | Computer Hardware and Network (w.e.f.April 2015) |
| | Elective – I | | |
| 14071 | 1. Digital Signal Processor | ----- | No Alternative Very Large Scale Integration |
| 14072 | 2. VLSI | 24053 | |
| 14073 | 3. Robotics and Auto-Electronics | 24763 | |
| 14064 | Computer Hardware & Networking Lab | 24684 | Computer Hardware and Network Practical (w.e.f.April 2015) |
| | Elective – I Lab | | |
| 14074 | 1. Digital Signal Processor Lab | ----- | No Alternative Very Large Scale Integration Practical |
| 14075 | 2. VLSI Lab | 24057 | |
| 14076 | 3. Robotics and Auto-Electronics Lab | 24765 | |

VIII SEMESTER
(With effect from April 2015)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|-----------------------------------|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14062 | Embedded Systems | 24061 | Embedded Systems |
| | Elective - II | | |
| 14081 | 1. Digital Image Processor | ----- | No Alternative Television Engineering Bio Medical Instrumentation |
| 14082 | 2. Television Engineering | 24081 | |
| 14083 | 3. Bio-Medical Instrumentation | 23082 | |
| 14065 | Embedded Systems Lab | 24064 | Embedded Systems Practical |
| 14066 | Project Work and Entrepreneurship | 24067 | Project Work |

**DIPLOMA IN ELECTRONICS (ROBOTICS) /MECHATRONICSENGINEERING
(SANDWICH)
ALTERNATIVE PAPERS IN L-SCHEME FOR K-SCHEME**

**III SEMESTER
(With effect from October 2012)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14031 | Electronic Devices and Circuits | 24031 | Electronic Devices and Circuits |
| 14233 | Electrical Circuits and Machines | 24232 | Electrical Circuits and Machines |
| 12031 | Mechanics of Materials | 24742 | Mechanics of Materials |
| 14041 | Analog and Digital Electronics | 24241 | Analog and Digital Electronics (w.e.f. October 2013) |
| 14734 | Electronic Devices and Circuits Machines Lab | 24734 | Electronic Devices and Circuits Practical |
| 14735 | Manufacturing Technology Lab | 24736 | Manufacturing Technology Practical (w.e.f. April 2013) |
| 14044 | Analog and Digital Electronics Lab | 24245 | Analog and Digital Electronics Practical (w.e.f. April 2013) |

**IV SEMESTER
(With effect from April 2013)**

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14742 | Hydraulics and Pneumatics Systems | 24753 | Hydraulic and Pneumatic systems (w.e.f. October 2013) |
| 14745 | Hydraulics and Pneumatics Systems Lab | 24756 | Hydraulics, Pneumatics and PLC Practical (w.e.f. October 2013) |
| 14746 | Report writing and Viva-voce | 24791 | Industrial Training-I |

V SEMESTER
(With effect from October 2013)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|--|---------------------|--|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14033 | 'C' Programming and OOPS | 24743 | Programming in C |
| 14051 | Microprocessor and Microcontroller | 24052 | Microcontroller |
| 14752 | Electronic Instrumentation | 24751 | Industrial Instrumentation and Automation (w.e.f April 2014) |
| 14073 | Robotics and Auto Electronics | 24763 | Robotics and Auto Electronics (w.e.f April 2014) |
| 14036 | 'C' Programming Lab. | 24746 | Programming in C Practical |
| 14054 | Microprocessor and Microcontroller Lab | 24056 | Microcontroller Practical |
| 14076 | Robotics and Auto Electronics Lab | 24765 | Robotics and Auto Electronics Practical (w.e.f April 2014) |
| 11011 | English Communication Lab | 20002 | Communication and Life Skill Practice |

VI SEMESTER
(With effect from April 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---|---------------------|----------------------------|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14252 | Process Control Instrumentation | 24762 | Process control |
| 12062 | Computer aided Design and Manufacturing | 24754 | CAD/CAM |
| 12042 | Machine Shop Technology | 24733 | Manufacturing Technology |
| 14255 | Process Control and instrumentation Lab | 24764 | Process Control Practical |
| 12064 | Computer aided Design and Manufacturing Lab | 24766 | CAD Practical |
| 14755 | AutoCAD Lab | | No Alternative |

VII SEMESTER
(With effect from October 2014)

| 'K' Scheme | | 'L' Scheme | |
|---------------------|---------------------------------|---------------------|----------------------------|
| Subject Code | Name of the subject | Subject Code | Name of the subject |
| 14766 | Project Work & Entrepreneurship | 24767 | Project Work |
| 14767 | Diary writing and Viva-voce | 24792 | Industrial Training-II |