

L.E.A. Information Guide

Training for the L.E.A. Electricians 'A' Class examinations is broken up into 3 parts:

1. S.W.P. Exam (Safe Working Practice)
2. L.E.T. Exam (Licensed Electrical Theory)
3. L.E.P. Exam (Licensed Electrical Practice)

The S.W.P. is a test of an apprentice's ability to safely disconnect and reconnect an electrical appliance. This could be the disconnection and reconnection of:

1. A 230 Volt Electric Fan Heater
2. A 230 Volt Storage Hot Water Service
3. A 400 Volt Electric Induction Motor

Students are marked on their:

1. Safe handling of electrical conductors
2. Proving the appliance conductors are de-energised before disconnection
3. Proving the new appliance passes the insulation resistance and continuity testing requirements for that particular appliance
4. Re-proving conductors are de-energised before reconnecting the appliance
5. Knowledge of all electrical safety requirements for this exam

The L.E.T. is a test of the student's ability to apply their knowledge to electrical problems.

These include:

- Cable Selection (cable size or maximum demand given in the problem)
- Maximum Demand (single domestic, factory, boarding house and commercial installations)
- Visual Defects (main switchboard, distribution board and outbuilding defects)
- Voltage Drop (different cable types, conductor temperatures, circuit protection, with cable installation conditions)
- DC Circuits (Series / Parallel circuits, with known and unknown values)
- Calculating fault current at a main switchboard and a sub-board
- Wiring Rules from AS/NZS 3000:2007
- Knowledge of electric motors and motor starters
- Knowledge of the Electricity Safety Regulations 2009
- Knowledge of the Construction and Demolition Rules
- Knowledge of the Safe Working Practice Code

The L.E.P. tests a student's ability to:

- Wiring of a domestic or commercial, 3 phase combination switchboard / meter panel with a sub-board
- Testing of an Electrical Installation, including R.C.D's
- Knowledge of the M.E.N. system
- Identifying Visual Electrical Defects