Board of Electrical Engineering

REGISTERED ELECTRICAL ENGINEER

A. Mathematics (25%)
   - Algebra
   - Trigonometry
   - Analytical Geometry
   - Differential Calculus & Differential Equations
   - Integral Calculus
   - Complex Numbers
   - Probability & Statistics
   - Matrices
   - Power Series
   - Power Series & Fourier Analysis
   - Laplace Transforms

B. Engineering Sciences and Allied Subjects (30%)
   - General Chemistry
   - College Physics
   - Computer Fundamentals & Programming
   - Engineering Materials
   - Engineering Mechanics
   - Fluid Mechanics
   - Strength of Materials
   - Thermodynamics
   - Electrical Engineering Law
   - Engineering Economics
   - Engineering Management
   - Contracts & Specifications
   - Code of Professional Ethics
   - Philippine Electrical Code Parts 1 and 2

C. Electrical Engineering Professional Subjects (45%)
   - Electric Circuits
   - Electronic Theory & Circuits
   - Energy Conversion
   - Power Transmission and Distribution
   - Instrumentation & Measurement
   - Circuit and Line Protection
   - Control System
   - Principles of Communication
   - Electrical Machines
   - Electrical Equipment
   - Components & Devices
   - Electric Systems
   - Power Plant
   - Electronic Power Equipment
   - Illumination
   - Building Wiring
Syllabi for Licensure Examinations for Registered Electrical Engineers and Master Electricians

REGISTERED MASTER ELECTRICIAN

A. Technical Subject (50%)
- Ohm’s Law: Calculations for Resistance, Current, Voltage and Power for DC and AC.
- Electrical Machines: Description and Operating principles of Motors, Generators and Transformers.
- Control Equipment Description and Functions of Fuses, Overload Relays, Safety Switches, Magnetic Switches, Circuits Breakers, Star-Delta Motor Starters, Transformer-Type Motor Starters, D. C. Motor Starters.
- Maintenance and Repair: Description of the Procedures in the Maintenance of Electrical Machinery.
- Test Equipment. Types and Uses of Measuring Instruments.
- Electrical Engineering Law Provisions Pertaining to Registered Master Electricians.

B. Philippine Electrical Code. Parts 1 and 2 (50%)
- General Requirements for Installation of Electric Wiring and Equipment.
- Approved Wiring Methods.
- Types of Wiring Materials and Wiring Devices.
- Installation of Switchboard and Panel boards.
- Wiring Diagrams of Different Types of Motor Starters with Motor Protection.
- Drawing Symbols and Wiring Plans.