

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.