

***Basic Electricity and Electronics (BEE) – The CertTEC® BEE certifications are performance based online exams. These exams will test hands-on troubleshooting skills utilizing a multi-meter, function generator, and oscilloscope along with an electronic trainer and test cards. If in your active, National Guard, or Army Reserve military training you have worked with the Basic Electronics Maintenance Trainer (BEMT) or attended the Apprentice Technical Training School (ATT), you are qualified to take the BEE exam. The BEE consists of 4 individual certifications focusing on basic electricity and electronics fundamentals in the following subject areas:***

- **Alternating Current (AC)**
  - Principles of Alternating Current
  - Electronic Components and Terms
  - Principles of Inductance
  - Transformer Theory
  - Principles of Capacitance
  - AC Generator Theory
  - AC Motor Theory
  - RC, RL, and RCL Principles
  - Cabling
  - Test Equipment and Measurements
  - Basic Electrical Safety Precautions
  - Mathematics and Formulas
  
- **Direct Current (DC)**
  - Basic Electrical Theory
  - Magnetism
  - Basic Electrical Safety
  - Electronic Equipment
  - Electronic Components
  - Ohms Law for Electronics
  - Basic Mathematics for Electronics
  - Electronic Measurements
  - Series Circuits for Electronics
  - Parallel Circuits for Electronics
  - Series/Parallel Combination Circuits for Electronics

- Battery Powered Supplies
  
- Analog
  - Diodes
  - Transistors
  - Thyristors
  - Integrated Circuits
  - Optoelectronic Devices
  - Power Supplies
  - Test Equipment and Measurements
  - Mathematics and Formulas
  - Amplifiers
  - Operational Amplifiers
  - Oscillators
  - Filters
  - Wave-shaping Circuits
  
- Digital
  - Numbering Systems and Conversions
  - Block Diagrams – Schematics-Wiring Diagrams
  - Test Equipment and Measurements
  - Safety Precautions
  - Theory of Digital Logic Functions and Circuitry