



**Electrical
Engineering Final
Exam**

1. A *hazardous material* found in existing self-luminous exit signs:
 - a. PCBs
 - b. tritium
 - c. lead
 - d. asbestos

2. A *hazardous material* found in existing manholes and handholes:
 - a. asbestos fireproofing
 - b. PCBs
 - c. tritium
 - d. mercury

3. For *coastal and high humidity areas*, base, cabinets, and tanks of all transformers must be corrosion resistant and be fabricated of:
 - a. aluminum
 - b. malleable iron
 - c. magnesium
 - d. stainless steel

4. *Load analysis* should use _____ rated main overcurrent protective devices for service sizes 400 amperes and larger.
 - a. 95%
 - b. 100%
 - c. 50%
 - d. 80%

5. Considering *motor starting/flicker analysis*, motor calculations must account for both _____ and running current.
 - a. idle
 - b. dormant
 - c. starting
 - d. maximum

6. A *motor starting/flicker analysis* should be provided for motors _____ hp and greater.
- 25
 - 60
 - 40
 - 10
7. With regards to *pole details*, initial sag values should be provided at ambient temperatures in _____ increments for a temperature range, which includes the outside summer and winter design temperature values.
- 5 degree C (9 degree F)
 - 15 degree C (27 degree F)
 - 20 degree C (36 degree F)
 - 10 degree C (18 degree F)
8. MDP is an abbreviation for:
- Main Distribution Panel
 - Motor Development Plan
 - Main Designation Panel
 - Multi-Distribution Panel
9. An electrical system having a maximum root-mean-square (rms) voltage of less than 1,000 volts is a:
- medium voltage system
 - high voltage system
 - residential system
 - low voltage system
10. Loads that convert AC to DC and contain some kind of rectifier are:
- linear loads
 - non-linear loads
 - rectified loads
 - sine loads