

**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