

**GEOGRAPHIC INFORMATION SYSTEMS  
GEOGRAPHIC INFORMATION CENTER  
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**\*\*\* EXAMINATION \*\*\***

**INTERCONNECTION TESTING OF DISTRIBUTED RESOURCES**

1. **Distributed resources are**
  - a) generation
  - b) storage
  - c) located at or near the point of use
  - d) All of the above
  
2. **An example of a field collaborating for standards is**
  - a) utilities
  - b) equipment manufacturers
  - c) government laboratories
  - d) All of the above
  
3. **Using uniform interconnection requirements helps**
  - a) save time
  - b) save money
  - c) both a and b
  - d) neither a nor b
  
4. **Standardized test procedures must provide**
  - a) repeatable results
  - b) dependence of the test location
  - c) a unique distributed resource
  - d) All of the above
  
5. **Design tests for distributed resources include**
  - a) response to normal voltage conditions
  - b) response to abnormal voltage conditions
  - c) non-synchronization
  - d) All of the above
  
6. **Interconnection integrity includes**
  - a) protection from electromagnetic interference
  - b) surge withstand
  - c) both a and b
  - d) neither a nor b

7. **Production tests include**
  - a) response to normal voltage conditions
  - b) response to abnormal voltage conditions
  - c) response to normal frequency conditions
  - d) non-synchronization
8. **The test facility should include a test switchboard**
  - a) connecting a utility source
  - b) with a distributed resource such as an inverter
  - c) with a local load bus
  - d) All of the above
9. **The data acquisition systems should be capable of**
  - a) sampling 1 million samples per second
  - b) sampling 3 million samples per second
  - c) sampling 5 million samples per second
  - d) sampling 7 million samples per second
10. **Voltage and current measurements for the data acquisition**
  - a) system should be accurate to +/- 0.2 percent
  - b) system should be accurate to +/- 0.4 percent
  - c) system should be accurate to +/- 0.6 percent
  - d) system should be accurate to +/- 0.8 percent
11. **The time measurements for the data acquisition system**
  - a) should be accurate to +/- 0.1 percent
  - b) should be accurate to +/- 0.3 percent
  - c) should be accurate to +/- 0.5 percent
  - d) should be accurate to +/- 0.7 percent
12. **All units of the utility grid simulator should operate**
  - a) in a serial mode
  - b) simultaneously
  - c) with a low tolerance circuit breaker
  - d) All of the above
13. **The grid simulator is**
  - a) a single-conversion power source
  - b) a double-conversion power source
  - c) a non-conversion power source
  - d) Any of the above
14. **The soft-load transfer switch should interconnect**
  - a) the electric power system
  - b) a synchronous generator
  - c) the load
  - d) All of the above

15. **Preventing unintentional islands**
- a) ensures the safety of utility personnel
  - b) ensures the integrity of the power system
  - c) both a and b
  - d) neither a nor b
16. **Design tests should allow full programmable control**
- a) of individual phase voltage
  - b) of the current
  - c) of the frequency
  - d) All of the above
17. **Output regulation and total harmonic distortion for the**
- a) autotransformer should be less than 1% for normal 60-Hz operations
  - b) autotransformer should be less than 2% for normal 60-Hz operations
  - c) autotransformer should be less than 3% for normal 60-Hz operations
  - d) autotransformer should be less than 4% for normal 60-Hz operations
18. **The load bank is controlled by a graphical user interface**
- a) through a USB port
  - b) through a serial port
  - c) through a parallel port
  - d) Any of the above
19. **Design tests capability should include**
- a) harmonics
  - b) DC injection
  - c) reverse power
  - d) All of the above
20. **Design tests should include**
- a) temperature variability
  - b) temperature loss
  - c) temperature stability
  - d) temperature gain

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