Chapter 17 Test: Fuses

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Class: ELT 211 Date:

Carefully read each question, and circle the letter next to the correct answer.

1. Plug type fuses are used for what?
   a. High voltage distribution
   b. Low voltage applications
   c. Inside cutout fuse holders
   d. For transmission line applications

2. What is a renewable cartridge fuse?
   a. A fuse in which the element cannot be replaced
   b. A fuse which will be replaced by the manufacturer if it fails
   c. A fuse in which the element can be replaced
   d. A fuse which will heal itself, and continue to operate

3. Cutouts are used with installations of what?
   a. Transformers
   b. Capacitors
   c. Sectionalizing points on overhead circuits
   d. All of the above

4. Modern cutouts typically use what type of fuse?
   a. Expulsion
   b. Cartridge
   c. Current limiting
   d. Plug

5. How is the arc extinguished in a fuse holder of a cutout during a large fault?
    a. It is extinguished by oil
    b. The fuse holder erodes, emitting a gas that blasts the arc out
    c. It is extinguished by air
    d. The fuse burns back until the arc is extinguished

6. An enclosed distribution cutout is one in which _____.
    a. Fuse clips and fuse holder are mounted completely in an enclosure
    b. Fuse clips and fuse holder are completely exposed
    c. There is no housing
    d. The fuse is immersed in mineral oil

7. The open distribution cutout is similar to the enclosed cutout, except that which part is omitted?
    a. Oil filled barrel
    b. The silicon element
    c. The fuse holder
    d. The housing

8. When a fault occurs, the fusible element is?
    a. Separated by the blast
    b. Melted by excessive current
    c. Melted by excessive voltage
    d. separated by mechanical action

9. For large values of fault current, the sheath of the fuse holder is?
    a. Rapidly destroyed
    b. Unaffected
    c. Blown apart
    d. Expanded

10. A time current curve is a curve that is plotted between the magnitude of a fault current and the time required for the fuse link to open the circuit.
    a. True
    b. False

11. Fuse links are identified by their amperage ratings, and by letter designations such as?
    a. K, T, N, H, and QR
    b. Q, L, M, V, and OT
    c. A, B, C, D, and E
    d. S, T, U, P, and ID

12. Solid material power fuses are required when _____.
    a. Cutouts are unavailable
    b. Fuse links have been exceeded due to higher fault currents
    c. Fuse links have been exceeded due to higher load currents
    d. Both b and c

13. The current limiting fuse is?
    a. And expulsion fuse
    b. A renewable fuse
    c. A nonexpulsion fuse
    d. Both a and b

14. The electronic componentry of electronic fuses provides what?
    a. Control power
    b. Current sensing
    c. Time current characteristics
    d. All of the above

15. The coordination of overcurrent protective devices involves their selection and use in such a manner that they do what?
    a. Remove temporary faults quickly
    b. Restrict permanent faults to the smallest section of the system possible
    c. Stop rifts in the space time continuum
    d. Both a and b

16. What are the locations of protective devices known as?
    a. Normal open points
    b. Disconnect switches
    c. Coordination points
    d. Protective points

17. What device usually signals a breaker to operate in a substation?
    a. Voltage regulator
    b. Relay
    c. Cutout
    d. Dynamometer

18. When a fault occurs on a fused device, what should occur?
    a. The breaker at the sub should lock out
    b. An OCR between the breaker and fuse should lock out
    c. The fuse should blow, disconnecting the equipment from the line, and deenergizing the smallest part of the circuit possible
    d. Both a and b

19. A protecting device is on the line side of a protected device.
    a. True
    b. False

20. What is the maximum amperage rating for open distribution cutouts?
    a. 100 amps
    b. 200 amps
    c. 300 amps
    d. 400 amps