Title: **Articles 320, 330, 358, 362** Test: 6

Course: Electrical Applications Unit: Code CLO: 1

Name ANSWER KEY Station 30pts. Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Student shall identify the correct answers as they relate to the National Electrical Code.

**Assessment**

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this Test. Grading shall be based on the answer key.

**Instructions**

Select the best answer to each multiple-choice question below.

**Article 320**

1. Type \_\_\_\_ cable is a fabricated assembly of insulated conductors in a flexible interlocked metallic armor. (1)
   1. AC
   2. MC
   3. NM
   4. B and C
2. Type AC cable is permitted in \_\_\_\_. (3)
   1. Wet locations
   2. Cable trays
   3. Exposed installations
   4. B and C
3. Armored cable shall not be installed \_\_\_\_. (4)
   1. In damp and wet locations
   2. Where subject to physical damage
   3. Where exposed to corrosive conditions
   4. All of these
4. Type AC cable installed through, or parallel to, framing members shall be protected against physical damage from penetration by screws or nails. (6)
   1. True
   2. False
5. The radius of the curve of the inner edge of any bend shall not be less than \_\_\_\_ for Type AC cable. (9)
   1. Five time the largest conductor within the cable
   2. Three time the diameter of the cable
   3. Five times the diameter of the cable
   4. Six time the outside diameter of the conductors
6. The AC cable shall be supported and secured by \_\_\_. (10)
   1. staples
   2. cable ties listed and identified for securement and support
   3. straps
   4. any of these
7. Type AC cable shall be secured at intervals not exceeding 4½ ft and within \_\_\_\_ in. of every outlet box. Cabinet, conduit body, or fitting. (11)
   1. 6
   2. 8
   3. 10
   4. 12

**Article 330**

1. Type MC cable shall be listed and fittings used for connecting Type MC cable to boxes, cabinets, or other equipment shall \_\_\_\_. (2)
2. Be nonmetallic only
3. Be listed and identified for such use
4. Be listed an identified as weatherproof
5. Include anti-shorting bushings
6. Exposed runs of cable, except as provided in 300.11(A), shall closely follow the surface of the \_\_\_. (4)
7. Building finish
8. Running boards
9. A or B
10. None of these
11. Smooth-sheath Type MC cable with an external diameter not greater than ¾ inch shall have a bending radius not more than \_\_\_\_ times the cable external diameter. (6)
12. 5
13. 7
14. 12
15. 13
16. Type MC cable shall be secured at intervals not exceeding \_\_\_\_ ft. (9)
17. 3
18. 4
19. 6
20. 8
21. Type MC cable installed through, or parallel to, framing members shall be protected against physical damage from penetration by screws or nails by 1¼ inch separation or protected by a suitable metal plate. (5)
22. True
23. False
24. Type MC cable installed horizontally through wooden or metal framing members are considered secured and supported where such support does not exceed \_\_\_\_ ft. intervals. (11)
25. 3
26. 4
27. 6
28. 8
29. Type MC cable can be unsupported and unsecured where the cable is \_\_\_\_. (12)
30. Fished between concealed access points in finished buildings or structures and support is impracticable.
31. Not more than 2 ft. in length at terminals where flexibility is necessary.
32. Not more than 6 ft. from the last point of support within an accessible ceiling for the connection of luminaires or other electrical equipment.
33. A or C

**Article 334**

1. Type NM cable and associated fittings shall be \_\_\_\_. (2)
2. marked
3. approved
4. identified
5. listed
6. Type NM cable can be installed as open runs in dropped or suspended ceilings in other than one and two family and multi-family dwellings. (3)
7. True
8. False
9. Type NM cable shall not be used \_\_\_\_. (6)
10. In other than dwelling units
11. In the air void of masonry block not subject to excessive moisture
12. For exposed work
13. Embedded in poured cement, concrete, or aggregate.
14. Type NM cable can be supported and secured by \_\_\_\_. (12)
15. staples
16. cable ties listed and identified for securement and support
17. straps
18. any of these
19. Flat Type NM cables shall not be stapled on edge. (13)
20. True
21. False
22. Type NM cable protected from physical damage by a raceway shall not be required to be \_\_\_\_ within the raceway. (14)
23. covered
24. insulated
25. secured
26. unspliced
27. Where Type NM cable is run at angles with joists in unfinished basements and crawl spaces, it is permissible to secure cables not smaller than \_\_\_\_ AWG conductors directly to the lower edges of the joist. (9)
28. Two, 6
29. Three, 8
30. Three, 10
31. A or B
32. Grommets or bushings for the protection of Type NM cable installed through or parallel to framing members shall be \_\_\_\_ for the purpose. (11)
33. marked
34. approved
35. identified
36. listed
37. The insulation temperature rating of conductors in Type NM cable shall be \_\_\_\_. (18)
38. 60˚C
39. 75˚C
40. 90˚C
41. 105˚C

**Article 358**

1. \_\_\_\_ is an unthreaded thinwall raceway of circular cross section designed for the routing and physical protection of electrical conductors and cables when joined together with listed fittings.
2. LFNC
3. EMT
4. NUCC
5. RTRC
6. The use of EMT shall be permitted for both exposed and concealed work in \_\_\_\_.
7. Concrete, in direct contact with the earth or in areas subject to severe corrosive influences where installed in accordance with 358.10(B).
8. Dry, damp, and wet locations
9. Any hazardous (classified) location as permitted by other articles in the *Code*
10. All of these
11. Galvanized steel and stainless steel EMT, elbows, couplings, and fittings can be installed in concrete, in direct contact with the earth, or in areas subject to severe influences where \_\_.
12. Protected by corrosion protection
13. Approved as suitable for the condition
14. A and B
15. Listed for wet locations
16. When EMT is installed in wet location, all supports, bolts, straps, and screws shall be \_\_\_\_.
17. Of corrosion-resistant materials
18. Protected against corrosion by corrosion-resistant materials
19. A or B
20. Of nonmetallic materials only
21. EMT shall not be used where \_\_\_\_.
22. Subject to severe physical damage
23. Protected from corrosion only by enamel
24. Used for the support of luminaires except conduit bodies no larger than the largest trade size of the tubing.
25. A and C
26. EMT shall not be threaded.
27. True
28. False
29. EMT couplings and connectors shall be made up \_\_\_\_.
30. Of metal
31. In accordance with industry standards
32. tight
33. none of these