2017 Code Practice Exam - 300 Question Answer Key

#	CORRECT ANSWER	ANSWER JUSTIFICATION OR CODE REFERENCE
1	C. Threaded steel intermediate metal conduit	514.8
2	D. All of the above	328.10
3	A. Metal, wood, or equivalent protective covering.	250.10
4	B. Receptacles	285.7
5	D. 175A	**Step 1: Lighting and Receptacles** Lighting = Table 220.12 = 3va x 1500sqft = 4500VA Small Appliance = 1500VA x 2 = 3000VA Laundry = 1500VA **Step 2: Table 220.42 - Lighting Demand** 4500VA + 3000VA + 1500VA = 9000VA First 3000VA @ 100%, Remainder @35% = 3000VA + 2100VA = 5100VA **Step 3: Cooking Appliances** 2 ovens @ 4000W each = 8000VA 1 cooktop = 5100VA Use Column C in Table 220.55 to find that 3 appliances between 3.5kW through 8.75kW can be totaled to 14kW. You could use Table A, instead, but for this calculation it was specified to use Column C. So total demand load for cooking appliances is 14,000 **Step 4: Air Conditioning** (6) 7A Window AC units = 6 x 7A = 42A 42A x 240V = 10,080VA **Step 5: Fixed Electric Space Heating**

		220.51 requires the bathroom heater to be calculated at 100% of the total connected load. This is not considered a non-coincident load since this heater could be turned on at the same time AC is running. So this load is 1500VA

Step 6: Noncoincident Loads
None

Step 7: Appliances
Dryer = 5000W
Water Heater = 4500W
Dishwaser = 1200VA

5100VA Lighting + 14,000VA Cooking + 10,080VA AC + 1500VA Heat + 5000W Dryer + 4500W Water Heater + 1200VA Dishwasher = 41,380VA

41,380VA / 240V = 172A

Using Table 240.6(A) we find the next standard size breaker is 175A, therefore the service rating would need to be 175A. |
| 6 | B. 125A | **Step 1: Lighting**
T220.12 - stores - 3va x 3000 sq ft = 9000 VA

Step 2: Show Windows
220.43(A) - 30 ft @ 200VA per ft = 6000VA

Step 3: Receptacles
T220.14(I) - 100 receptacles @ 180VA per receptacle = 18,000VA
First 10,000VA @ 100% per T220.44 = 10,000VA
Remaining @ 50% = 8000 x 0.5 = 4000VA
Receptacle demand load = 10,000VA + 4000VA = 14,000VA

Step 4: Add all of the above totals
5700VA lighting + 6000VA show window + 14,000VA receptacles = 25,700VA
29,000VA / 240V = 121A
T310.15(B)(16), 75°C column - 1 AWG THW Copper would be selected to serve a 121A load.
T240.6(A) lists 110A, and 125A standard breakers to choose from. 240.4(B) allows using the next higher breaker above the ampacity of the conductors being protected. We would select a 125A breaker for this instance. |
| 7 | D. 1,200A / 3,000A | 230.95(A) |
| 8 | A. Designed | 240.54(B) |

9	B. Class I, Division 2	514.3(B)(3)(e)
10	C. 25,500VA	T220.54, 6,000VA x 5 = 30,000VA. Apply 85% demand factor for 5 dryers so 30,000VA x 0.85 = 25,500VA
11	D. Ground-fault circuit-interrupter	511.12
12	B. Maximum operating current	430.6(C)
13	B. 18,000VA	220.60
14	B. 70%	630.31(A)(1)
15	D. The building or structure disconnecting means	250.32(C)(1)
16	C. Manual	702.4(B)(1)
17	B. Grouped	424.19
18	A. At least equal to	110.9
19	C. A drop box	520.2
20	D. Not less than 3 feet	230.9(A)
21	A. Ungrounded conductors	480.7(A)
22	A. FRR	728.120
23	B. Interactive	706.8(B)
24	B. 30kW	Refer to Table 220.55, Column C, for the number of appliances, which is 15. The maximum demand factor for 15 ranges is 30kW per Column C.
25	A. Class I, Division 2	Table 511.3(D)
26	B. 8.8kW	1) Combine the Appliances NEC 220.55, Note 4: A counter-mounted cooking unit and up to two wall-mounted ovens (in the same room) can be added together and treated as one range. Nameplate ratings: Cooktop: 6 kW (2) Wall ovens: 4 kW each → 8 kW total

		Combined load: 6 kW + 8 kW = 14 kW 2) Apply Table 220.55 (Column C) For one range up to 12 kW, the demand is 8 kW. 3) Adjust for Over 12 kW (Note 1) The appliance is 2 kW above 12 kW → 2 increments of 5% = 10% Additional: 10% of 8 kW = 0.8 kW 4) Calculate Final Demand 8 kW (base) + 0.8 kW (overage) = 8.8 kW, so maximum demand load is roughly 8.8kW
27	A. Insulated copper equipment grounding conductor	517.13(B)(1)(2)
28	D. Equipment grounding conductor	408.40
29	D. Continuous maintenance and supervision ensure that qualified persons service the installed cable tray system	392.60(A)
30	A. 45,000VA	Choose the larger of 220.14(K)(1) or 220.14(K)(2) - in this case 220.14(K)(1) = 250 x 180VA = 45,000VA. 220.14(K)(2) = 25,000 x 1VA = 25,000VA.
31	C. 162,940VA	First, let's calculate the total connected load by adding up all the individual loads for both 120V and 208V systems. 120-Volt Loads 60 duplex receptacles: As per 220.14(I), each duplex receptacle is calculated at 180 VA for commercial buildings. So, 60 receptacles amount to 60 × 180 VA =10,800 VA 100 ft multi-outlet assembly: Given in 220.14(H) of 180 VA per foot = 18,000 VA 1 broiler 5 kW = 5,000 VA 2 deep fryers 5.5 kW each = 2×5,500 VA=11,000 VA 1 freezer 3,400 VA 1 booster heater 1,500 VA 1 coffee service machine 3,500 VA 1 dishwasher 3,500 VA 208-Volt Loads 1 walk-in cooler 6,400 VA 1 water heater 4,800 VA 1 oven 20 kW = 20,000 VA 1 range 15 kW = 15,000 VA 2 convection ovens 8 kW each = 2×8,000 VA=16,000 VA

		1 15kW electric heater = 15,000 VA 1 14 kW AC = 14,000 VA 3 208V exhaust fans 2.4A each = 3×2.4A×208V = 1500 VA 1 cooktop 10 kW = 10,000 VA 2 10 kW heating units = 2×10,000 VA=20,000 VA We'll sum these up to get the total connected load. Then we'll apply the demand factors from Table 220.88 to calculate the total demand load. The demand factor for all electric restaurants will be applied to the total connected load. Total 120V loads: 56,700 VA Total 208V loads: 122,700 VA Total Lighting and Sign: 50,000 VA Total Connected Load (Before Demand Factor): 65,700 VA + 122,700 VA + 50,000 VA = 229,400 VA First 200kVA calculated at 80% = 160kVA Remaining 29,400VA at 10% = 2,940VA Total Demand Load = 160,000VA + 2,940VA = 162,940VA
32	A. The concrete tight type	344.42(A)
33	A. Electrically continuous with the raceway	374.18(B)
34	A.5 ft	640.10(A)
35	B. 175%	Table 430.52
36	B.1 1/2 inch	Chapter 9 Table 5 lists 1 AWG as 0.1562 sq-in, 2 AWG as 0.1158 sq-in, and 4 AWG as 0.0824 sq-in. So the sum of these 5 conductors is 0.1562 + (2 x 0.1158) + (2 x 0.0824) = 0.5122 sq-in. Chapter 9 Table 4 Article 348 lists in the "Over 2 conductors 40% column" 1 1/4" FMC has an area of 0.511 sq-in which is too small. Therefore the next size up 1 1/2" FMC with an area of 0.743 sq-in must be selected.
37	E. all of these	250.92(B)
38	A. 4 in	225.14(C)
39	C. shall not	240.24(E)
40	B. 42.25A	**1)** Table 310.16 90°C column, 8 AWG THHN is listed at 55A. **2)** Table 310.15(B)(2)(a) - Because we used T310.15(B)(16), we have to use Table 310.15(B)(2)(a), rather than Table 310.15(B)(2)(b). We see in the 87-95°F row, under 90°C conductors we have a 0.96 correction factor. **3)** Table 310.15(B)(3)(a) - 4 conductors get an 80% adjustment factor

		applied to it
		4) 55A x 0.96 x 0.8 = 42.24A
41	C. 8 AWG	240.21(B)(1); Table 310.15(B)(16)
42	D. 225A primary /300A secondary	1. Calculate primary Full Load Amperage using: FLA_primary = (kVA x 1000) / (E x √3). For a 75 kVA transformer with a 480V primary voltage: FLA_primary = (75kVA x 1000) / (480 x √3) = 90.2A According to Table 450.3(B), for primary protection of a transformer with a current of 9 amperes or more, we can use up to 250% of the primary current rating if secondary protection is provided. Otherwise, if only primary protection is used, it can be 125%. Primary FLA = 90.2 x 2.50 = 225.5A This is the maximum ampere rating, so we cannot go up to 250A (note 1 only applies to 125% specifically, not 250%) Therefore we would select a 225A OCPD for our primary protection. 2. Calculate secondary Full Load Amperage using: FLA_secondary = (kVA x 1000) / (E x √3). For a 75 kVA transformer with a 208V secondary voltage: FLA_secondary = (75kVA x 1000) / (208 x √3) = 208.2A Primary FLA = 208.2 x 1.25 = 260.25A Per Note 1 of Table 450.3(B): 1. Where 125 percent of this current does not correspond to a standard rating of a fuse or nonadjustable circuit breaker, a higher rating that does not exceed the next higher standard rating shall be permitted. Using Table 240.6(A) we see there is only 250A or 300A to choose from. Therefore we can upsize to a 300A breaker maximum for the secondary OCPD device for this transformer. So your final answer should be 225A primary OCPD and 300A secondary OCPD.
43	D. lockable in the open position	450.14 mentions "lockable", and 110.25 mentions lockable in the "open position"
44	B. 125A	455.7(A)
45	D. Liquid-Tight Flexible Metal Conduit	300.22(B)
46	C. 45A	Table 430.72(B) Column C
47	E. B or C	404.9(B)

48	C. 164A	Table 430.247
49	B. 18 inches	513.10(C)(1)
50	A. grounded	516.23
51	B. high-voltage switch or equivalent disconnecting means	660.24
52	B. FALSE	680.12
53	D. Remainder over 12,500VA	Table 220.45
54	A. a means to de-energize the cable conductors and power service delivery device	626.23(B)
55	D. 7	Annex C, Table C.1
56	C. 50A	**Step A**: 550.18: Lighting (70 ft × 10 ft × 3VA per ft2) = 2,100VA Small-appliance (1500VA × 2 circuits) = 3,000VA Laundry (1500VA × 1 circuit) = 1,500VA Subtotal = 6,600VA First 3000 VA at 100% = 3,000VA Remainder (6600VA – 3000VA = 3600VA) × 35% = 1,260VA Total = 4,260VA Amperes per leg = 4620VA / 240V = 17.75A per leg

Table for question 56:

Leg A	Leg B
18 (lighting/appliances)	18 (lighting/appliances)
4 (Fan 200VA x 1.25 / 120V)	4 (Fan 200VA x 1.25 / 120V)
2 (Fan 200VA x 1.25 / 120V)	- (Fan 200VA x 1.25 / 120V)
- (Dishwasher 400VA / 120V)	3 (Dishwasher 400VA / 120V)
23 (Range 7000VA x 0.8 / 240V)	23 (Range 7000VA x 0.8 / 240V)
47A (Total amperes per leg)	48A (Total amperes per leg)

Step B: Total Load for Determining Power Supply
Based on the higher current calculated for either leg, a minimum 50-A supply cord would be required.

57	A. listed antenna discharge unit	810.20(A)
58	D. All of these	750.20
59	A. 1/0 THWN Primary, 400 kcmil THWN Secondary	**1. Calculate primary Full Load Amperage using:** FLA_primary = (kVA x 1000) / (E x √3). For a 112.5kVA transformer with a 480V primary voltage: FLA_primary = (112.5kVA x 1000) / (480 x √3) = 135.3A **2. To size the primary conductors we refer to Table 310.15(B)(16) and find, under the 75ºC column 1/0 copper THWN will handle up to 150A.** **3. Calculate secondary Full Load Amperage using:** FLA_secondary = (kVA x 1000) / (E x √3). For a 112.5kVA transformer with a 208V secondary voltage: FLA_secondary = (112.5kVA x 1000) / (208 x √3) = 312.3A **4. To size the secondary conductors we refer to Table 310.15(B)(16) and find, under the 75ºC column 400 kcmil copper THWN will handle up to 335A.**
60	B. Class I, Division 1	Table 515.3
61	D. supplying multiple-occupancy buildings where there is no space available for supply equipment accessible to all occupants	225.3
62	D. 105.6A	310.15(B)(16): 1/0 copper row under 75°C column for THWN shows 150A Table 310.15(B)(2)(a) row for 96-104°F, 75°C conductor column shows 0.88 correction factor Table 310.15(B)(3)(a) 4-6 current carrying conductors get a 80% adjustment factor 150 x .08 x 0.88= 105.6A
63	A. 6 AWG	A continuous load must be calculated at 125% of its rated current per 210.19(A)(1), therefore a 35A load must be sized for conductors that are 35 x 1.25 = 43.75A. Table 310.15(B)(16) lists TW as a 60°C conductor and the smallest size TW conductor which can carry 43.75A is a 6 AWG conductor.

64	A. be marked on the motor-compressor nameplate	440.4(A)
65	C. 3	Table 220.12
66	B. 25A	411.3
67	C. 18 inches	Table 300.5
68	C. 15.2A	Table 430.250
69	A. mechanical protection	525.21(B)
70	D. embedded in plaster finish or brick or other masonry except in wet locations	320.10 and 320.12
71	A. closed	368.58
72	C. plus 125% of the FLA rating of all resistance heating loads	409.21(C)
73	D. either vertical or horizontal	404.6(B)
74	A. is within sight	422.31(B)
75	B. helps to prevent unintentional signals on fire alarm circuit(s)	760.30
76	C. 2 feet	514.8 Exception 2
77	D. Park Trailer	552.2
78	A. 80%	440.62(B)
79	B. 12 inches	470.3
80	C. 2	518.4(A)
81	D. equipment grounding conductor	348.60
82	A. in dry locations	380.10
83	D. grouped together	300.20(A)

84	C. 150V or more than 5A	727.5
85	B. 167%	522.10(A)(2)
86	A. 2 ft	552.41(A)
87	D. shall not	230.10
88	D. 75A	Table 310.15(B)(16) THWN is a 75°C conductor and 6 AWG lists 65A. Table 310.15(B)(2)(a) shows 75°C conductors within 51 - 59°F get a 1.15 correction factor for the temperature of the environment. So 65 x 1.15 = 74.75A
89	A.135%	430.27 and 460.8(A)
90	D. 70A	Table 430.52 shows wound-rotor motors on non delay fuses can be calculated at a maximum of 150% of the motor's Full-Load Current. Table 430.250 shows a 15HP 230V motor has an FLC of 42A. Calculate: 42A x 1.5 = 63A Table 240.6(A) only has a 60 or 70A fuse, not 63 430.52 Exception 1 states: Where the values for branch-circuit short-circuit and ground-fault protective devices determined by Table 430.52 do not correspond to the standard sizes or ratings…a higher standard size shall be permitted. Therefore a 70A fuse is permitted.
91	B. ampere rating of largest motor, from the motor nameplate, or load	670.3(A)
92	C. at terminal and junction locations	760.30
93	A. copper	332.108
94	D. insulated equipment grounding conductor	250.146(D)
95	B. where concealed	384.10
96	A. receptacles located more than 5 1/2 ft above the floor	406.12, Exception, (1)

97	C. 194°F	410.11
98	C. grounded conductor	410.50
99	B. 20 amperes or less	406.3(C)
100	B. 125%	675.11(B)
101	B. 48A	680.10
102	D. 125%	680.10
103	C. 90	590.3(B)
104	B. 4	Ch. 9, Table 1 shows 40% fill. Annex C, C.1 EMT shows 4 1/0 AWG conductors can fit in 1 1/2" EMT at 40% fill
105	C. 3X	Table 110.28
106	D. 60°C (140°F)	340.80
107	A. Supply-Side Bonding Jumper	250.2
108	C. an effective grounding path	250.68(B)
109	A. 30	110.26(A)(2)
110	C. only one feeder or branch circuit	225.30
111	B. Grounding Electrode	100
112	D. 125%	422.10(A)
113	B. GFCI	210.8(D)
114	D. 32	406.5
115	D. clothes dryers	250.142(B) Exception 1
116	A. mechanically connected	314.30(B)
117	D. is identified as a means of support	300.11(C)
118	C. orange	110.15
119	A. 12	334.30

120	D. tamper-resistant	406.12
121	B. grounded conductor at the service	250.104(C)
122	B. 20A	Table 400.5(A)(1)
123	C. dry and damp	Table 310.104(A)
124	D. Type MC cable	690.31(A)
125	C. attachment plug and receptacle	440.13
126	A. 3	410.10(D)
127	C. bathrooms	210.8(A)
128	B. 12	210.52(C)(1)
129	B. shall not	404.2(B)
130	C. Line-to-neutral loads	210.4(C)
131	D. Garages	210.12(A)
132	B. external to	250.94(A)
133	D. irreversible compression-type connectors	250.64(C)
134	A. family rooms, living rooms, bedrooms	210.12(A)
135	A. 1/4	312.2
136	B. 3/4 inch	Annex C, Table C.11
137	C. supported by messenger wires	225.6 (B)
138	B. 10	240.21(B)(1) (2)
139	B. be permitted to be tapped, without overcurrent protection at the tap	240.21(B)(3)(3)
140	C. attachment plug	100

141	D. voltages greater than the low-voltage contact limit	680.23(A)(3)
142	B. 22.5	Table 680.9(A)
143	C. 4 AWG Copper	Table 250.66
144	A. 1/0 AWG and larger	310.10(H)(1)
145	D. 1500	410.103
146	A. 50%	210.23(A)(2)
147	C. 50	314.27(A)(2)
148	C. 18	210.52(A)(3)
149	B. equipment grounding	338.10(B)(2)
150	D. any connections to ground	110.7
151	C. Over 350 kcmil – 600 kcmil copper	Table 250.66
152	A. 6	Table 300.5
153	A. shall not be	250.4(A)(5)
154	C. Overhead Service Conductors	100
155	C. derived ungrounded	250.30(A)(2)
156	B. 83%	310.15(B)(7)
157	D. 80A, 90A,350A, 110A	Table 240.6(A)
158	A. 3	210.52(D)
159	D. at least equal to	110.9
160	A. AC	320.40
161	B. A continuous white outer finish	200.6(B)
162	C. 18 inches	Table 300.5
163	D. cutout box	100

164	D. permanently affixed to the equipment or wiring method and shall not be handwritten	110.21A(B)(2)
165	B. 3-wire	220.82(A)
166	A. supported in a manner designed	110.36
167	D. 80	210.23(A)(1)
168	B. 10	Table 250.122
169	D. Underground	348.12
170	C. damp	404.4(B)
171	C. 1500	220.52(B)
172	B. Two	210.52(B)(3)
173	D. 200	630.12(B)
174	A. 10 ft	Table 680.9(B)
175	C. with no more than 6 operations of the hand	225.33(B)
176	B. 6	Table 314.16(A)
177	A. 3 feet	Table 110.26(A)(1)
178	A. 1.342 square inches	Ch.9 Table 1 shows percent of cross-sectional area for a conduit with two or more conductors shall be a maximum of 40%. Also Chapter 9 Table 4 EMT shows this same relationship in the 2" row, under the 40% column. Either method will yield the same result. 3.356 sq-in x 0.40 = 1.342 sq-in
179	C. suitable for the conditions of use	314.28(C)
180	D. Where equipment operates with any terminal at over 150V to ground	250.110
181	C. 6 AWG	Table 250.122
182	B. 3 feet 6 inches	Table 110.26(A)(1)

183	C. 3/0	Table 250.102(C)(1)
184	C. 300	410.103
185	B. CO/ALR	404.14(C)
186	D. Bare copper conductor not smaller than 4 AWG	250.52(A)(3)
187	A. Continuous	424.3(B)
188	A. 10	230.24(B)
189	D. Flexible metallic tubing	250.118(7)
190	B. Wet locations	312.2
191	C. one-family dwelling units	334.10
192	B. 4 AWG	Table 250.66
193	C. edge of the sink	210.8(A)(7)
194	A. without	240.30(B)
195	B. 24A	Table 210.21(B)(2)
196	B. insulated	250.118(10)
197	A. ungrounded	250.4 (B)(4)
198	C. Utilization	100
199	C. rated current	100
200	C. 125	210.20(A)
201	D. Both A and C	646.6(B)(2)
202	C. 25.2 kW	Refer to Table 220.55, Column B, for 8kW appliances, shows for 9 units the maximum demand factor is 35%. Maximum demand load = 8 kW×9×0.35=25.2 kW
203	C. 90A	430.6(A), 430.250 lists FLC rating for 25HP squirrel cage 460V motor is 34A . Table 430.52 shows AC polyphase motors can have a max rating of 250% of the motor's FLC. Therefore 34A x 2.5 = 85A. Looking at Table 250.6(A) we see 85A is not a standard breaker size

		so we need to either round up to 90A or round down to 80A. Back in Table 430.52 Exception 1 states: Where the values for branch-circuit short-circuit and ground-fault protective devices determined by Table 430.52 do not correspond to the standard sizes or ratings of fuses, nonadjustable circuit breakers, thermal protective devices, or possible settings of adjustable circuit breakers, a higher size, rating, or possible setting that does not exceed the next higher standard ampere rating shall be permitted. Thus we would round up to a 90A breaker for this instance.
204	C. 6AWG Copper	280.23
205	A. 30	725.41(A)
206	D. 9	1) Chapter 9, Table 1, Note 4: An 18-inch conduit is considered a nipple, and is allowed to have 60% of its cross-sectional-area filled. 2) Chapter 9, Table 4 (Article 356): 1 1/4" LFNC volume @ 60% = 0.901 sq-in. 3) Chapter 9, Table 5: #4 THW has an area of 0.0973 sq-in per conductor. 4) Calculation: 0.901 sq-in / 0.0973 sq-in = 9.26 conductors, or 9 full conductors will fit in the 60% area of the nipple.
207	A. 10	514.8
208	A. 40A	430.6(A)(2) states motor overload protection is based on the FLA rating on the motor nameplate. In this case 32A. 430.32(A)(1) states motors with marked service factor 1.15 or greater may have an overload device selected which is no more than 125% of the FLA rating. Thus 32A x 1.25 = 40A.
209	C. 6	230.71(A)
210	A. 200A	First figure out primary current with I = P / E. I = 75,000VA / 480V = 156A T450.3(B) "Primary Only Protection" shows 125% of transformer rated current for primary protection with currents of 9A or more. Therefore we take 156A x 1.25 = 195A. Next look in Table 240.6(A) to see if there's a 196A breaker, and there's not. Note 1 under Table 450.3(B) states: "Where 125 percent of this current does not correspond to a standard rating of a fuse or nonadjustable circuit breaker, a higher rating that does not exceed the next higher standard rating shall be permitted." Therefore rounding up to a 200A breaker is allowed.
211	D. vapor seal	368.234(A)
212	C. 4 AWG copper	T250.122

213	B. in-line	394.56
214	D. be permitted to be installed with conductors of a non intrinsically safe circuit.	504.30(A)(1) Exception 2
215	B. supply-side bonding jumper	250.35(B)
216	A. grounded conductor	200.2
217	C. system	200.6(D)
218	A. (4) 250 kcmil THWN	Our breaker is 1000A, so according to 240.4(C) "Where the overcurrent device is rated over 800 amperes, the ampacity of the conductors it protects shall be equal to or greater than the rating of the overcurrent device." This means that our conductors can not be smaller than the 1000A breaker, however they can be larger. So 1000A / 4 = 250A per conductor. Table 310.16 lists 250 THWN as a 255A conductor so (4) parallel 250 kcmil THWN conductors can handle 1020A and are acceptable for this application.
219	A. dc use	712.4
220	D. 30mA	555.3
221	B. corrosive electrolyte	480.9
222	A. used when recommended by the battery or cell manufacturer	480.4(A)
223	D. All of these	285.23(B)
224	C. luminaires equipped with mogul-base screw shell lampholders	210.6(C)
225	B. 4 inches	225.14(C)
226	D. utilize a permanently attached power supply cable	626.23(A)
227	A. shall be electrically grounded	516.6(F)
228	A. 120V	210.6(A)

229	B. bushing	610.12(B)
230	C. at least equal to	110.9
231	D. over 150V to ground	425.14
232	D. the same	701.10
233	A. 15-minute	708.20(F)(1)
234	B. 17 feet	Table 680.9(A)
235	C. glass-enclosed and gasketed	530.51
236	D. readily accessible	706.7(A)
237	B. 2 AWG copper	Table 250.102(C)(1)
238	C. 20 feet	600.32(J)(1)
239	C. 18 inches	230.6
240	B. 175 %	440.22(A)
241	D. abut, but not overlap	505.7(B)
242	A. totally enclosed	515.7(B)
243	B. 6 feet	530.13
244	B. Two	215.4(A)
245	A. five times	338.24
246	B. 5 feet	366.30(A)
247	B. 10 feet	230.26
248	D. shall not be used	240.10
249	C. 6 AWG copper	Table 250.102(C)(1)
250	D. each ungrounded conductor	285.4
251	A. evaporative coolers	210.63 Exception
252	D. 300%	630.32(B)
253	A. 2 inches	342.10(C)

254	B. 0.213 inches	Chapter 9, Table 5A
255	A. have a distinctive color or marking so as to be readily identifiable	708.10(A)(2)
256	C. 180 sq-in or more	410.23
257	C. service-entrance equipment	702.7(A)
258	B. 30V AC	393.10(1)
259	A. 24	552.45(B)
260	A. 12 inches	555.19
261	A. 100°F	514.3(A)
262	B. 12 inches	470.3 and 470.18(C)
263	C. 11 kVA	626.11(A)
264	B. 65%	Table 430.23(C)
265	A. motor	430.8
266	B. two to six	230.40 Exception 2
267	A. 3 feet	408.18(A)
268	A. 20%	378.22
269	D. 300VA	422.31(A)
270	B. nonconducting	480.9
271	D. eight times the metric designator (trade size) of the largest raceway.	380.23
272	C. critical branch	517.18(A)
273	D. 7 feet	320.23(A)
274	C. ten times	330.24(A)
275	D. Any of these	240.6(C)

276	A. the rotary-phase converter has been started	455.21
277	B. bonded together	250.92(A)
278	C. 14 inches	Table 354.24(A)
279	A. 1/0 AWG	374.20
280	B. non-threaded fittings	440.9
281	D. The required conductor shall be secured within or under the perimeter surface 120 mm to 170 mm (6 in to 8 in) below the subgrade	680.26(B)(2)(b)
282	C. 1000A	210.13
283	C. 18 feet	225.18
284	A. reclassified	506.7(C)
285	D. Class I Division 1	Table 514.3(B)(1)
286	A. equipment grounding conductor	515.8(C)
287	B. 3A	Table 522.22
288	C. largest single	710.15(A)
289	A. Cords on the load side of a listed Class 2 power source are required to contain an equipment grounding conductor	605.6(B)
290	D. 70% / 50%	630.31(A)
291	B. interlocked	625.52(B)(4)
292	D. 6 feet	110.33(A)(1)
293	A. two or more	210.7

294	C. 277V	225.7(C)
295	B. Type MC	230.44
296	C. 5 ft / 6 ft	328.30
297	A. listed tamper-resistant receptacles	406.12
298	B. FALSE	450.23(A)
299	D. 125%	520.25(A)
300	D. 8 AWG	547.10(B)