2023 Code Practice Exam - 300 Question Answer Key

#	CORRECT ANSWER	ANSWER JUSTIFICATION OR CODE REFERENCE
1	B. threaded steel intermediate metal conduit	514.8
2	D. all of the above	315.32
3	A. metal, wood, or equivalent protective covering.	250.10
4	C. Receptacles	242.8
5	B. 137.85A	**Step 1: Lighting and Receptacles** Lighting = T220.12 = 3va x 1500 sq ft = 4500VA Small Appliance = 1500VA x 2 = 3000VA Laundry = 1500VA **Step 2: T220.42 - 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 8000 + 5100 = 13,100VA Apply demand factor of 55% from Table 220.55 = 13,100VA x 0.55 = 7205VA **Step 4: Air Conditioning** (6) 7A Window AC units = 6 x 7A = 42A 42A x 240V = 10,080VA **Step 5: Noncoincident Loads** Bathroom heat omitted due to AC - per 220.60 **Step 6: Appliances** Dryer = 5000W Water Heater = 4500W Dishwasher = 1200VA

		Step 7: Add up all prior steps 5100VA Lighting + 7205VA Cooking + 10,080VA AC + 5000W Dryer + 4500W Water Heater + 1200VA Dishwasher = 33,085VA 33,085VA / 240V = 137.85A
6	B. 125A	**Step 1: Lighting** T220.42(A) - retail - 1.9va x 3000 sq ft = 5700VA **Step 2: Show Windows** 220.46(A) - 30 ft @ 200VA per ft = 6000VA **Step 3: Receptacles** 220.14(I) - 100 receptacles @ 180VA per receptacle = 18,000VA First 10,000VA @ 100% per T220.47 = 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 25,700VA / 240V = 107A T310.16, 75°C column - 2 AWG THW Copper would be selected to serve a 107A load. T240.6(A) lists 100A, 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. Our actual calculated load is only 107A, so we could use a 110A breaker to protect this service. Since our conductors are 115A-rated though, and most service panelboards are rated either 100A or 125A, we would realistically select a 125A breaker for this instance and we'd be within code tolerances since the next sized breaker above our conductor's 115A, is 125A.
7	D. 1,200A / 3,000A	230.95(A)
8	A. designed	240.54(B)
9	B. Class I, Division 2	514.3(B)(2)
10	C. 25,500VA	Table 220.54
11	A. 6 inches	511.10(B)(3)
12	D. maximum operating current	430.6(C)
13	B. 18,000 VA	220.60
14	C. 70%	630.31(A)(1)

15	D. the building or structure disconnecting means	250.32(C)(1)
16	A. manual	702.4(A)(1)
17	C. grouped and identified as having multiple disconnecting means	424.19
18	B. at least equal to	110.9
19	A. a drop box	100
20	D. not less than 3 feet	230.9(A)
21	B. ungrounded conductors	480.7(A)
22	B. FRR	728.120
23	C. interactive	706.16(B)
24	A. 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	B. Class I, Division 2	Table 511.3(D)
26	B. 8.8kW	1) Combine the Appliances NEC 220.55, Note 6: 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	408.40

	conductor	
29	A. 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(J)(1) or 220.14(J)(2) - in this case 220.14(J)(1) = 250 x 180VA = 45,000VA. 220.14(J)(2) = 25,000 x 1VA = 25,000VA. T220.42(A) Note 4 lists banks as a type of office occupancy.
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	B. the concrete tight type	344.42(A)
33	D. electrically continuous with the raceway	374.18(B)
34	A. 5 ft	640.10(A)
35	C. 175%	Table 430.52(C)(1)
36	C. 1 ½ 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(A)
39	B. 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)(1)(1) - Because we used T310.16, we have to use Table 310.15(B)(1)(1), rather than Table 310.15(B)(1)(2). We see in the 87-95°F row, under 90°C conductors we have a 0.96 correction factor. **3)** Table 310.15(C)(1) - 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 310.16
42	A. 125A 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 **2. 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 1.25 = 112.5A 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. Therefore in Table 240.6(A) the next size breaker is 125A, which is the maximum we could choose for primary OCPD for this transformer. **3. 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 Using Table 240.6(A) again we see we can upsize to a 300A breaker maximum for the secondary OCPD device for this transformer.
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	A. Liquid-Tight Flexible Metal Conduit	300.22(B)
46	C. 45A	Table 430.72(B)(2) Column C
47	F. B or C	404.9(B)
48	C. 164 A	Table 430.247
49	B. 18 inches	513.10(C)(1)
50	A. grounded	516.23
51	D. high-voltage switch or equivalent disconnecting means	660.24
52	B. FALSE	680.12(A)
53	A. Remainder over 12,500VA	Table 220.42(A)
54	C. 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

<table>
<tr><td></td><td></td><td>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><tr><th>Leg A</th><th>Leg B</th></tr><tr><td>18 (lighting/appliances)</td><td>18 (lighting/appliances)</td></tr><tr><td>4 (Fan 200VA x 1.25 / 120V)</td><td>4 (Fan 200VA x 1.25 / 120V)</td></tr><tr><td>2 (Fan 200VA x 1.25 / 120V)</td><td>- (Fan 200VA x 1.25 / 120V)</td></tr><tr><td>- (Dishwasher 400VA / 120V)</td><td>3 (Dishwasher 400VA / 120V)</td></tr><tr><td>23 (Range 7000VA x 0.8 / 240V)</td><td>23 (Range 7000VA x 0.8 / 240V)</td></tr><tr><td>47A (Total amperes per leg)</td><td>48A (Total amperes per leg)</td></tr></table>
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.</td></tr>
<tr><td>57</td><td>B. listed antenna discharge unit</td><td>810.20(A)</td></tr>
<tr><td>58</td><td>D. All of these</td><td>750.20</td></tr>
<tr><td>59</td><td>A. 1/0 THWN Primary, 400 kcmil THWN Secondary</td><td>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 310.16 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 310.16 and find, under the 75ºC column, 400 kcmil copper</td></tr>
</table>

		THWN will handle up to 335A.
60	A. Class I, Division 1	Table 515.3
61	C. supplying multiple-occupancy buildings where there is no space available for supply equipment accessible to all occupants	225.3
62	C. 105.6A	310.16: 1/0 copper row under 75°C column for THWN shows 150A Table 310.15(B)(1)(1) row for 96-104°F, 75°C conductor column shows 0.88 correction factor Table 310.15(C)(1) 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 310.16 lists TW as a 60°C conductor and the smallest size TW conductor which can carry 43.75A is a 6 AWG conductor.
64	D. be marked on the motor-compressor nameplate	440.4(A)
65	C. 3	Table 220.42(A)
66	C. 25A	411.4
67	C. 18 inches	Table 300.5(A)
68	B. 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	B. 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	C. helps to prevent unintentional signals on fire alarm circuit(s)	760.30
76	B. 2 feet	514.8 (A) and (D)
77	D. Park Trailer	100
78	B. 80%	440.62(B)
79	C. 12 inches	470.11
80	A. in the face-up position	518.5(A)(5)
81	B. equipment grounding conductor	348.60(B)
82	D. in dry locations	380.10
83	C. grouped together	300.20(A)
84	A. 150V or more than 5A	335.5
85	C. 167%	522.10(A)(2)
86	A. 2 ft	552.41(A)
87	B. shall not	230.10
88	D. 75A	Table 310.16 THWN is a 75°C conductor and 6 AWG lists 65A. Table 310.15(B)(1)(1) 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	D. 135%	430.27 and 460.8(A)
90	B. 45A	Table 430.52(C)(1) shows wound-rotor motors on non time delay fuses can be calculated at a maximum of 150% of the motors Full-Load Current. Table 430.250 shows a 15HP 230V motor has an FLC of 42A. 430.52(C)(1)(a) 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. Table 240.6(A), therefore, allows for a 45A fuse.
91	C. ampere rating of largest	670.3(A)

	motor, from the motor nameplate, or load	
92	A. at terminal and junction locations	760.30
93	D. copper	332.108
94	B. insulated equipment grounding conductor	250.146(D)
95	D. where concealed	384.10
96	C. receptacles located more than 5 1/2 ft above the floor	406.12, Exception (1)
97	C. 194°F	410.11
98	A. grounded conductor	410.51
99	B. 20 amperes or less	406.3(C)
100	C. 125%	675.11(A)
101	B. 48A	680.10(A)
102	A. 125%	680.10(A)
103	B. 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	D. 3X	Table 110.28
106	C. 60°C (140°F)	340.80
107	A. Supply-Side Bonding Jumper	100
108	D. an effective grounding path	250.68(B)
109	A. 30	110.26(A)(2)
110	B. only one feeder or branch circuit	225.30
111	D. Grounding Electrode	100
112	A. 125%	422.10(A)(3)
113	C. GFCI	210.8(A) - Kitchens
114	D. 32	406.5

115	C. clothes dryers	250.142(B) Exception 1
116	B. mechanically connected	314.30(B)
117	A. is identified as a means of support	300.11(C)
118	D. orange	110.15
119	A. 12	334.30
120	B. tamper-resistant	406.12
121	D. grounded conductor at the service	250.104(C)
122	B. 20A	Table 400.5(A)(1)
123	C. dry and damp	Table 310.4(1)
124	B. 30 V	690.31(A)(2)
125	A. attachment plug and receptacle	440.13
126	A. 3	410.10(D)
127	D. Bathrooms	210.8(A)
128	C. 24	210.52(C)(1)
129	B. shall not	404.2(B)
130	A. Line-to-neutral loads	210.4(C)
131	C. Garages	210.12(B)
132	A. external to	250.94(A)
133	D. irreversible compression-type connectors	250.64(C)
134	B. family rooms, living rooms, bedrooms	210.12(B)
135	B. ¼	312.2
136	B. ¾ inch	Annex C, Table C.11
137	C. supported by messenger wires	225.6 (B)
138	B. 10	240.21(B)(1) (2)
139	A. be permitted to be tapped,	240.21(B)(3)(3)

	without overcurrent protection at the tap	
140	D. attachment plug	100
141	C. 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(G)(1)
145	D. 1500	410.100
146	A. 50%	210.23(B)(2)
147	C. 50	314.27(A)(2)
148	B. 18	210.52(A)(3)
149	D. equipment grounding	338.10(B)(2)
150	B. any connections to ground	110.7
151	B. Over 350 kcmil – 600 kcmil copper	Table 250.66
152	A. 6	Table 300.5(A)
153	D. shall not be	250.4(A)(5)
154	C. Overhead Service Conductors	100
155	B. derived ungrounded	250.30(A)(2)
156	B. 83%	310.12(A)
157	A. 80A, 90A,350A, 110A	Table 240.6(A)
158	D. 3	210.52(D)
159	C. at least equal to	110.9
160	B. AC	320.40
161	C. A continuous white outer finish	200.6(B)
162	B. 18 inches	Table 300.5(A)
163	A. cutout box	100

164	D. permanently affixed to the equipment or wiring method and shall not be handwritten	110.21A(B)(2)
165	C. 3-wire	220.82(A)
166	A. supported in a manner designed	110.36
167	A. 80	210.23(B)(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	B. 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	D. 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	D. suitable for the conditions of use	314.28(C)
180	C. If equipment operates with any terminal at over 150V to ground	250.110
181	B. 6 AWG	Table 250.122
182	B. 3 feet 6 inches	Table 110.26(A)(1)
183	B. 3/0	Table 250.102(C)(1)
184	C. 300	410.100

185	A. CO/ALR	404.14(C)
186	D. Bare copper conductor not smaller than 4 AWG	250.52(A)(3)
187	C. 125%	424.4(B)
188	A. 10	230.24(B)
189	B. Flexible metallic tubing	250.118(A)(7)
190	D. Wet locations	312.2
191	A. one-family dwelling units	334.10
192	B. 4 AWG	Table 250.66
193	C. bowl of the sink	210.8(A)(7)
194	A. without	240.30(B)
195	B. 24A	Table 210.21(B)(2)
196	D. insulated	250.118(A)(10)
197	B. ungrounded	250.4 (B)(4)
198	A. Utilization	100
199	C. rated current	100
200	C. 125	210.20(A)
201	E. 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	B. 90A	430.6(A), 430.250 lists FLC rating for 25HP squirrel cage 460V motor is 34A . Table 430.52(C)(1) 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(C)(1) 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	B. 6 AWG Copper	242.52
205	A. 30	724.40
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	D. 10	514.8(A)
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(B)
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	B. vapor seal	368.234(A)
212	B. 4 AWG copper	T250.122

213	D. in-line	394.56
214	A. be permitted to be installed with conductors of a non intrinsically safe circuit.	504.30(A)(1)(2)
215	C. supply-side bonding jumper	250.35(B)
216	B. grounded conductor	200.2
217	A. nominal voltage 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	B. in parallel with a primary source	705.5
220	C. 30A	555.33(A)(4)
221	D. corrosive electrolyte	480.9
222	A. used where recommended by the battery manufacturer's installation and instruction manual.	480.4(A)
223	D. All of these	242.13(B)
224	B. luminaires equipped with mogul-base screw shell lampholders	210.6(C)
225	B. 4 inches	225.14(A)
226	A. utilize a permanently attached power supply cable	626.23(A)
227	C. shall be electrically grounded	516.6(F)
228	A. 120V	210.6(A)
229	B. bushing	610.12(B)

230	D. at least equal to	110.9
231	A. over 150V to ground	425.14
232	C. the same	701.10(A)
233	A. 15-minute	708.20(F)(1)
234	B. 17 feet	Table 680.9(A)
235	D. in a separate room	540.11(A)
236	B. 10 feet	706.15
237	C. 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	A. abut, but not overlap	505.7(B)
242	D. totally enclosed	515.7(B)
243	A. metal raceways	530.5(A)
244	B. Two	215.4(A)
245	D. five times	338.24
246	B. 5 feet	366.30(A)
247	C. 10 feet	230.26
248	D. shall not be used	240.10
249	D. 6 AWG copper	Table 250.102(C)(1)
250	A. each ungrounded conductor	242.20
251	B. evaporative coolers	210.63(A) Exception
252	D. 300%	630.32(B)
253	A. 2 inches	342.10(C)
254	B. 0.213 inches	Chapter 9, Table 5A
255	C. have a distinctive color or marking so as to be readily identifiable	708.10(A)(2)
256	B. 180 sq-in or more	410.23

257	A. service-entrance equipment	702.7(A)
258	B. 30V AC	393.10(1)
259	A. 24	552.45(B)
260	A. 12 inches	555.33
261	A. 100°F	514.3(A)
262	B. 12 inches	470.11 and 470.20(C)
263	C. 11 kVA	626.11(A)
264	C. 65%	Table 430.23(C)
265	D. motor	430.8
266	C. 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	C. eight times the metric designator (trade size) of the largest raceway.	380.23
272	A. 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	C. 1/0 AWG	374.20
280	D. compression-type fittings	440.9
281	D. 4 in. to 6 in.	680.26(B)(2)(b)(2)
282	C. 1000A	210.13

283	B. 18 feet	225.18
284	A. reclassified	506.7(C)
285	A. Class I Division 1	Table 514.3(B)(1)
286	C. equipment grounding conductor	515.8(C)
287	B. 3A	Table 522.22
288	D. 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	C. interlocked	625.52(B)(4)
292	D. 6 feet	110.33(A)(1)
293	A. two or more	210.7
294	B. staggered	225.24
295	C. Type MC	230.44
296	C. 5 ft / 6 ft	315.40
297	D. listed tamper-resistant receptacles	406.12
298	B. FALSE	450.23(A)
299	D. 125%	520.25(A)
300	D. 8 AWG	547.44(B)