**CMGT 235 – Electrical and Mechanical Systems**

**Homework #26**

Due: 11/29/2022

Points: 20

Show all work. Use NEC 2017 – Chapter 9 and Annex C

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What trade size PVC Schedule 40 raceway is required for 4 #4/0 and 1 #4 G THHN service entrance conductors?

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| --- | --- | --- | --- | --- |
| QTY | Gage | Type | Cross-Section Area (E Wire) | Total Cross- Section Area |
|  |  |  |  |  |
|  |  |  |  |  |
| Total Cross-Section Area for all wires | | | |  |
| Required Trade Size PVC SCHD 40 Raceway | | | |  |

1. What trade size EMT raceway is required for 3 #350 phase conductor, 1 #350 neutral conductor, and 1 #1 THHN equipment ground?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| QTY | Gage | Type | Cross-Section Area (E Wire) | Total Cross- Section Area |
|  |  |  |  |  |
|  |  |  |  |  |
| Total Cross-Section Area for all wires | | | |  |
| Required Trade Size EMT Raceway | | | |  |

1. What trade size PVC SCHEDULE 80 raceway is required for 3 #500 THHN phase conductors and 1 #500 neutral conductor?
2. How many #6 THHN conductors can be installed in a trade size 3/4 RMC?