COT 3100 Fall 2022 - Homework #2 Grading Criteria

1) 4 pts –½ pt per row, round down, whole row has to be correct for pt.

2) 4 pts –½ pt per row, round down, whole row has to be correct for pt.

3) 4 pts – Full credit for any correct solution, take off 2 pts if reasons are missing, give partial credit as you see fit.

4) 4 pts – Full credit for any correct solution, take off 2 pts if reasons are missing, give partial credit as you see fit.

5) 3 pts

1 pt for starting with an arbitrarily chosen element in the LHS set. (They can just say, Let $x \in (A \cup B) \cap C$.)

1 pt for deriving that $x \in C$, by definition of intersection.

1 pt for deriving $x \in (A \cup B) \cap C$. No need to use commutative law or going from definition of or to union. I just wanted to show what it would look like without those steps (which are fairly intuitive) included.

6) 4 pts – 1 pt – x being an element of A – B – C
2 pts – determining that x does NOT below to B – C.
1 pt – concluding that x is in A – (B – C).

7) 6 pts – Each side is 3 points.
1 pt for starting with an arbitrary element in one set.
1 pt for working out the definition.
1 pt for completing the proof.

8) 6 pts – Each side is 3 points.
1 pt for starting with an arbitrary element in one set.
1 pt for working out the definition.
1 pt for completing the proof.

9) 5 pts – 2 pts for stating true (automatic 0 out of 5 if said it's false).
1 pt for taking an arbitrary element in B – A
1 pt for infering that element is in C.
1 pt for concluding
Note: Other proof techniques are possible. Map points accordingly.

10) 5 pts - 0 out of 5 if try to prove
2 pts for clearly stating it's false.
1 pt for any attempt at clearly listing a counter example.
1 pt for the counter example being valid
1 pt for explaining why the counter example is one.

11) 5 pts - Just eyeball this, give it full credit if it's a reasonable summary of at least two regular length paragraphs. Give partial as you see fit.