1. If P then Q, P is not the case |- Q is not the case / Valid Invalid,
2. P |- P and Q / Invalid
3. P and Q |- P / invalid valid, it is snowing and cold, therefore it is snowing
4. P or Q |- P / invalid
5. P |- P or Q / Invalid valid, It is snowing, therefore it is either snowing or hot
6. If P then Q |- If Q then P / invalid
7. If P then Q |- if P then it is not the case that Q / Invalid
8. P if and only if Q |- Q if and only if P / valid
9. P if and only if Q |- P and Q / invalid valid, it is snowing if and only if it is cold, therefore it is snowing and cold.
10. P, P is not the case |- Q / invalid valid, the only way to determine validity is by assuming the premises are both true. But if the premises are contradictory, then it is impossible for them to both be true. Therefore it is automatically valid.