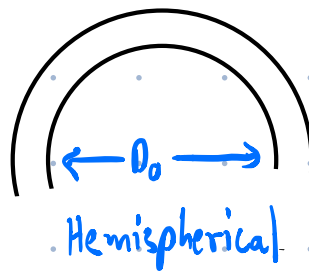
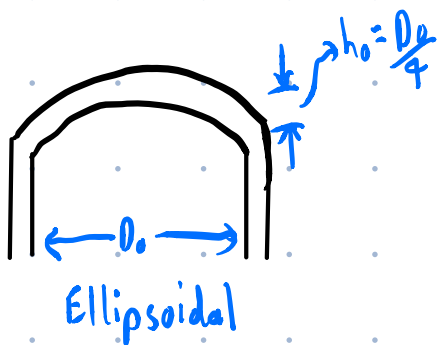
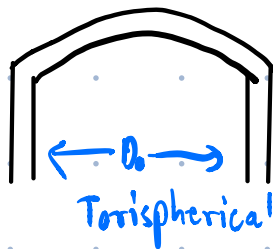
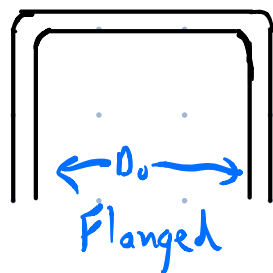
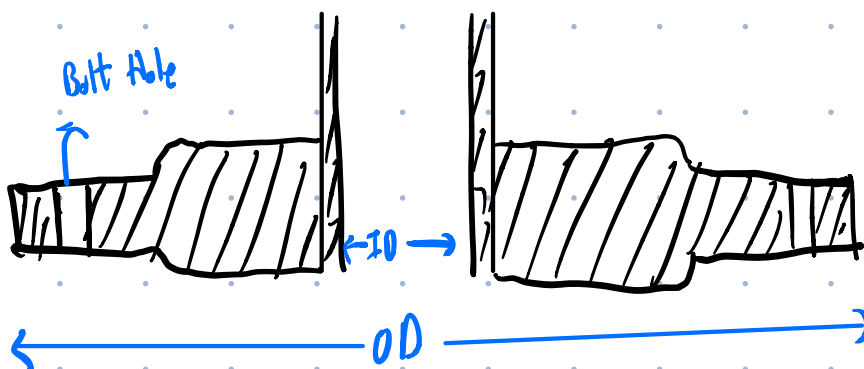
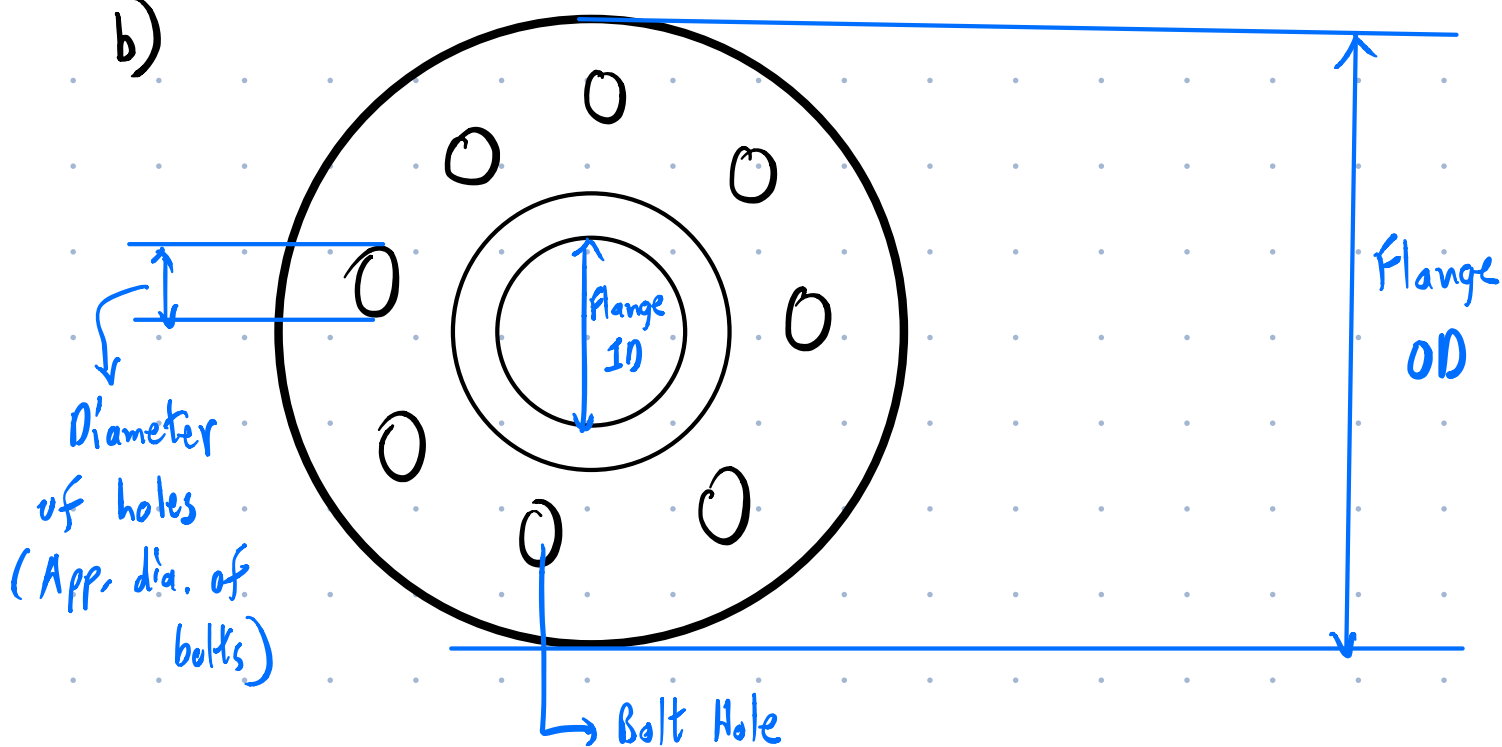


Q1

a)



b)



Q2)

- a) The extra 5% is done to safeguard against the time it would take to bring down pressure if it exceeds the max. value.
- b) The additional 6% is added to take care of the reduction in thickness at the torus section
- c) Since negligible corrosion occurs over the lifetime, the allowance for the same is taken to be less than that of the pressure vessel where it's prominent
- d) This is done to prevent leakage of internal fluid under operating pressure due to the hydrostatic end force that tends to separate the flange,
- e) On the upwind side, the dead weight stress is helping in reducing the oncoming stress due to it being in the opposite direction.

But in the downwind side, it acts with the ongoing stress & this is added to the thickness

calculation.