For each of the following conditions:

1) **complement C8 deficiency**: a defect that results in the functional absence of the eighth complement cascade. C8 is involved in the complement lytic pathway.

**2) X- linked agammaglobulinaemia (burtons disease) :**This affects an enzyme that is required for B cell development so pre B cells fail to mature. The effect is very low levels of all classes of antibody, although T cells mature normally. The condition is X- linked and therefore predominantly affects boys.

3) **Selective IgA deficiency:** This is one of the more common immunodeficiencies , affecting around 1 in 700 individuals. Those affected have low IgA levels, but other immunoglobulin classes are normal as are T cells and phagocytes.

QUESTION:

A) For each condition state what types of infection you expect each of the above conditions the affected individual would be susceptible to.

B) For each condition suggest why an individual would be susceptible to the types of infections you listed in **the question above (A).**