Question 6. Given the universal set $U = \{a, b, c, d, e, f, g, h\}$ and the sets $A = \{a, e, h\}$, $B = \{b, c, d, e, h\}$ and $C = \{b, c, d\}$, find the complements using De Morgan's law.

(a) $A' \cup C' = (A \cap C)' = (\{\})' = \{a, b, c, d, e, f, g, h\}$

(b) $A' \cap B' = (A \cup B)' = (\{a, b, c, d, e, h\})' = \{f, g\}$

(c) $B' \cap C' = (B \cup C)' = (\{b, c, d, e, h\})' = \{a, f, g\}$

(d) $A' \cup B' = (A \cap B)' = (\{e, h\})' = \{a, b, c, d, f, h\}$