Chapter 6 :compactness

**6-1**: 1,2,3,4,5,6,7,8,11,12,13,14,15,17,18,19,20

**6-2**: 1,2,3,4,5,6,7

Q1: Let be any infinite set with two topologies  and  such that  is a compact space, and . Show that  is compact.

Q2: Let  Is  a compact space.

Q3: Give an example of a compact space which has a non compact subspace.

Q4: Show that every subspace of (X, cofinite topology ) is compact.

Q5: Show that Theorem 6.1.21 is not true if X is not compact.