I think question 7a in section 2.4 is false. Do the followings.

Let A be the right shift operator and B be the left shift operator on ℓ^2.

(a) Show that A has no eigenvalue (already do that in class).

(b) $B = A^*$.

(c) The eigenvalue set of B is $\{\lambda \in \mathbb{C} : |\lambda| < 1\}$.

Hence question 7a is false.