Correction.

Q.6. (-2) points.

If AB and BA are defined then A and B are square matrix.

f) let $A=\begin{bmatrix}1\\1\end{bmatrix}$ $B=[1\ 1]$

Both AB and BA are defined but A and B aren't square matrix.

ANS) False

Q.7. (-6) points.

2. Show that if V is isomorphic to W then W is isomorphic to V

If V is isomorphic to W then $T: V \to W$ is isomorphism

T is invertible so there is isomorphism $T^{-1}: W \to V$

therefore W is isomorphic to V

3. Show that if V is isomorphic to W and W is isomorphic to U then V is isomorphic to U

Since V is isomorphic to W ~~T~~ $T: V \to W$ is isomorphism

Since W is isomorphic to U there is $T': W \to U$ which is isomorphism

T and T' are invertible then $T'T$ is also invertible

therefore ~~T~~ $T'T$ is isomorphism that means

V is isomorphic to U