1. Technological improvement in US raises home supply reducing foreign supply relative to domestic supply. There is an increase in q. Since home output rises, P falls. Increase in $\frac{E^*}{P}$ and fall in P implies that the change in E is ambiguous.

2. Increase in government spending raises the relative demand for home goods, shifting the relative demand for foreign goods left. There is a fall in q. Since there is no long-run effect on output, P does not change and E moves in the same direction as q, falling.
3. An increase in monetary growth does not affect the relative demands for home and foreign goods and therefore has no effect on the real exchange rate. The nominal exchange rate will depreciate over time.

4. The change in tastes changes the relative demand for US goods. The answer is the same as 2.

5. Increase in the world supply of oil raises the relative supply of foreign goods. Here we are looking as US relative to the entire rest of the world including oil supplying countries. The relative supply of foreign goods increases reducing q. Since home output does not change, P does not change. However, \( P^* \) decreases, implying an ambiguous change in E.