***Chapter 8 Quiz***

1. Define “Last mile problem” and, in your own words, explain why it arises.

The “last mile problem” refers to the difficulty of distributing goods and services the last mile to end users. This problem arises because, while post offices are very well and efficiently connected to each other, the end locations of goods and services are spread in a multitude of directions and isolated places.

1. What are some things you could do to help reduce the emission of C02 caused by the transportation system? Name three things you could do.

Commute to work, ride public transportation/bike, walk to close places, drive more gently (less acceleration, minimal dramatic breaking) to improve efficiency, consume biofuel, drive a car instead of a truck, buy an EV instead of an ICE vehicle (if it’s a better choice -> Question 8.3).

1. Why is transportation so important to our lives? What two important tasks does it fulfill?

Transportation is crucial because it moves people and freight/goods. For this reason, transport service levels are usually quantified in units of passenger-km for personal transport and tonne-km for freight transport.

1. What broad options are there that could improve the sustainability of the modern transportation system?

The two main options available to improve the sustainability of the modern transportation system are: a) improve efficiency and b) transition to sustainable fuels (biofuel, EVs?).

1. Explain how the phenomenon “problem shifting” can be observed when analyzing EVs and ICE vehicles.

Problem shifting arises in the case of transportation transitions, because, while EV’s can reduce global warming impact relative to ICE vehicles (if used for a certain amount of km/mi), they do so at the expense of depleting the stock of mineral resources, used for engine and battery fabrication.