**EAS 375**

**Lecture Questions**

**Lecture 8 - Transportation and Refining**

1. Discuss the three major ways crude oil is transported a refinery and the advantages and disadvantages of each.

All except pipeline have to go back, to return to destination (sort of). (back haul).

- Trucking: expensive.

- Rail

- Pipeline: Most efficient. Leakage, construction problem, Maintenance.

- Water carriers

2. Why is distillation the foundation of refining crude oil into the petroleum products that we use everyday?

Because the components of crude oil have different boiling temperatures. Helps separate a mixture of substance.

3. What is meant by “cracking” refining in process?

Splitting large hydrocarbon molecules into lighter/smaller molecules by heat.

Cat cracking: convert heavier fuels oil to gasoline.

1. Why is it that after the cracking process that you have more volume of products than you started with?

Refinery gain: More volume because large molecules have been broken.

1. How are refined products shipped through a pipeline?

Pump stations along the pipeline route.

6. What is the Strategic Petroleum Reserve and what was the reason that it was created?

It was created because of the disruption from Arabs country of OPEC which led to high prices. Goal is to make US more independent to supply disruptions.

7. Why would a politician be tempted to release oil or heating oil from the SPR?

To reduce prices, to please voters/constituents.

8. Why did oil companies collude to control the production of oil during the early years of the oil industry? Include in your answer, not only the profit motive, but include the role of production played in their thinking.