

Attempt all questions. Present your arguments clearly and concisely.

1. Briefly define the following terms **[4 marks]**:
  - a. Sustainable development;
  - b. “Tragedy of the commons”;
  - c. Unintended environmental consequences;
  - d. Life-cycle assessment.
2. Compare from an environmental and policy viewpoint the advantages and disadvantages of coal and oil as energy sources for the United States economy **[6 marks]**.
3. You work for General Daimford Motor Company. Your manager has asked you to lead the design team for a new vehicle that will be marketed as a “green” consumer transport solution. Discuss briefly how you might use the Life Cycle assessment formalism to identify for such a vehicle (throughout its lifecycle):
  - a. The important areas of environmental impact;
  - b. Major regulatory risks (i.e. areas where policy makers might in the future impose more stringent environmental laws for consumer transport);
  - c. Potential improvements that would reduce the environmental impacts and mitigate the regulatory risks. **[10 marks]**.