

Attempt all questions. Present your arguments clearly and concisely.

1. Briefly define the following terms **[5 marks]**:

- a. Sustainability;
- b. “Tragedy of the commons”;
- c. Unintended environmental consequences;
- d. “Design for Environment”;
- e. “Life-cycle Assessment”.

2. Present appropriate examples of:

- a. Cleaner processes;
- b. Cleaner products;
- c. Sustainable resource use;

in current industrial activity **[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 “Design for Environment” formalism to identify for such a vehicle (throughout its lifecycle):

- a. The important areas of environmental impact;
- b. Potential improvements that would reduce these impacts **[9 marks]**.