Attempt all questions. Present your arguments clearly and concisely.

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

    a. Sustainable development;

    b. "The triple bottom line";

    c. Carrying capacity;

    d. "Design for Environment";

    e. "Life-cycle Assessment".

2. Present appropriate examples of:

    a. Positive;

    b. Negative;

    c. Unintended

    environmental consequences of technological breakthroughs **[6 marks]**.

3. You work for a consumer chemical company that has recently been taken over by a multi-national corporation that has a well-established corporate image as a "green", environmentally friendly organization. Your first task after the takeover is to lead the design team to develop a new, improved version of "Cleano", your (old) company's best-selling detergent. Discuss briefly how you might use the "Design for Environment" formalism to impress your new bosses **[9 marks]**.