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F-24

EEE - Assignment 6

Q.1 EIA is prepared for -
(a) Every specified polluting developmental project

Q.2. EIA is intended to identify the environmental, social and economic impacts of a proposed development -
(a) Prior to the decision to sanction a project is taken

Q.3. The environmental impact assessment should include -
(d) All of the above

Q.4 Life cycle analysis is cradle to grave analysis Explain.

A.4. • Life cycle assessment is a technique to assess environmental impacts associated with all the stages of a product's life from raw material extraction through materials processing, manufacture, distribution, use, repair & maintenance & disposal or recycling.
• Hence it is a technique where complete process of life of a product is analysed from start to end.

Q.5. Why is it important for engineers to use the LCA when designing products?

A.5 It is important for engineers to use LCA when designing products because —

- LCA identifies environmental hot spots in products & materials & establishes the benchmark against which improvements can be measured.
- It provides designers, regulators & Engineers with valuable information for exploring decisions in each life stage for materials, buildings, services & infrastructure.

Q.6 Describe LCA process in the picture. Also, write down the possible environmental problems in each stage/phase.

~~1. Goal & Scope definition~~ —

~~The end products are cars, bicycles.~~

INPUT		OUTPUT
Energy : Electricity, Crude Oil Resources : Natural gas	Raw material extraction ↓ Raw material manufacturing ↓ Product manufacturing	Release : CO_2, SO_x Into air : NO_x
Mineral : Crude Oil Resources : Iron Ore	↓ Transportation	Release : BOD, Into water : COD, etc
Renewable : Water Resources : Wooden	↓ Use ↓ Disposal & Recycling	Release : Solid waste Into soil : Polluted sludge etc.

Environmental Impact Assessment : Depletion of Resources, Global warming, Acid Rain, Air Pollution, Water Pollution