Time :(Three Hours)   **Total Marks: 80**

Note: 1. Q1 is compulsory
           2. Solve any three from remaining
           3. Assume suitable data wherever required

Q.1	Write notes on. **(Any Four)**	**20**

        a) Product Lifecycle Phases
        b) Reason for implementing a PDM system
        c) Tools for virtual product development
        d) Methodological Evolution in Product Design
        e) Model analysis
        f) General framework for LCCA

Q.2 a.	State and explain end of life cycle strategies.	**10**
b.	Define PDM. What are the barriers to PDM implementation.	**10**
Q.3 a.	Define Change Management. Why Change Management is important in PLM?	**10**
b.	Explain the Product Design Process and its phases in the Development Process.	**10**
Q.4 a.	Explain phases of Life Cycle Analysis in ISO Standards	**10**
b.	Explain the Role of FEM and CAD in VPD.	**10**
Q.5 a.	What is New Product Development (NPD)? Explain its Strategies.	**10**
b.	Importance of Product Design in the Context of the Product Development Process.	**10**
Q.6 a.	Define Life Cycle Assessment (LCA). Explain the fields of Application of Life Cycle Assessment.	**10**
b.	Define Design for Environment. Explain the guidelines for design for environment.	**10**

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