

(3 Hours)

[Total Marks: 80]

- N.B. :** (1) Question No. 1 is compulsory.
 (2) Attempt any THREE questions from remaining five questions.
 (3) Figures to the right indicate full marks.
 (4) Illustrate the answers with neat sketches wherever required.

1. (a) Describe PLM Strategy to achieve objectives. **10**
 (b) Explain Environmental Strategies into the Design Process **10**
2. (a) What is the use of digital mock-up and prototype development in Product Development. **10**
 (b) Explain Design for X system and Design-Centered Development Model. **10**
3. (a) Explain the approach of implementation of environmentally oriented product development. **10**
 (b) Explain the Concurrent Engineering with neat sketch in Product Design. **10**
4. (a) Explain Product Data Management (PDM) system and reason for implementing PDM in a Organization. **10**
 (b) Explain General framework for Product Life Cycle Cost Analysis (LCCA) **10**
5. (a) What are the Opportunities of Globalization? **10**
 (b) What are the importance and benefits of PLM? **10**
6. Write short notes (**any four**) **20**
 - a) Cost Analysis and the Life Cycle Approach
 - b) Model building in Virtual Product Development
 - c) Need for PLM
 - d) Reference Model
 - e) PLM Paradigm.