

(Three Hours)

Total Marks: 80

Instructions:

- Attempt any **FOUR** questions
- All question carry equal marks
- Assume suitable data wherever necessary
- Figures to the right indicate full marks.
- Draw figures to support your answers wherever necessary

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