

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

Nov – Dec 2025

(B. Tech) Program: All Branches Scheme : II

Regular Examination: LY Semester: VII

Course Code: ILC7051 and Course Name: Product Development Life Cycle

Date of Exam: 04.12.2025

Duration: 02.5 Hours

Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

Q.No	Questions	Max. Marks	CO	BT level
Q1	Solve any two questions out of three. (05 marks each)	10		
a.	Explain Product Life cycle with the help of a neat and labeled diagram.		1	U
b.	Describe the new product development strategies in detail.		2	U
c.	Elaborate any five components of PDM system.		3	An
Q2	Solve any two questions out of three. (05 marks each)	10		
a.	Explain by means of a product as an example, the three main recovery levels of end-of-life strategies		5	An
b.	Explain the various types of rendering techniques used for product development?		4	U
c.	Describe the phases of LCA as per ISO standards.		6	U
Q3.	Solve any two questions out of three (10 marks each)	20		
a.	Describe in detail the various PLM paradigms. How these paradigms are different from the pre-PLM environment?		1	U
b.	Explain the general framework for LCCA.		6	U
c.	Describe the three phases through which DFE is implemented in design practice?	20	5	An

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Q4.1.	any two questions out of three (10 marks each)			
a.	Explain model building approach in detail.		3	U
b.	Explain the benefits of virtual product development?		4	An
c.	State any two characteristic features of concurrent engineering.		2	U
