

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

Nov – Dec 2025-26		
(B. Tech / M. Tech.) Program: Information Technology Scheme III		
Regular: TY Semester: V		
Course Code: ITDLC5042 and Course Name: <b>Advanced Software Engineering and Project Management</b>		
Date of Exam: 01/12/2025	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.	Question	Max. Marks	CO	BT level
<b>Q 1</b>	<b>Solve any two questions out of three: (05 marks each)</b>	<b>10</b>		
a)	Describe V-model for software development.		CO1	U
b)	List and explain Design Concepts in design engineering.		CO2	U
c)	Explain W <sup>5</sup> HH Principle.		CO3	U
<b>Q 2</b>	<b>Solve any two questions out of three: (05 marks each)</b>	<b>10</b>		
a)	Describe Risk Projection and Risk management process.		CO4	U
b)	Explain Refined Experience in Action of architecture.		CO5	U
c)	Explain Types of Micro Services.		CO6	U
<b>Q.3</b>	<b>Solve any two questions out of three. (10 marks each)</b>	<b>20</b>		
a)	Explain Extreme Programming (XP).		CO1	U
b)	Explain interface Design Steps and Analysis.		CO2	U
c)	Explain PMBOK Knowledge areas in project management.		CO3	U
<b>Q.4</b>	<b>Solve any two questions out of three. (10 marks each)</b>	<b>20</b>		
a)	Describe SCM Repositories in detail.		CO4	U
b)	Describe Kanban processing model in detail.		CO1	U
c)	Describe the Challenges of Micro Services and Monolithic Architecture.		CO6	U