

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

H.P. 4

~~Nov - Dec 2024-25~~ **Jan / Feb 2025**

(B. Tech / M. Tech.) Program: Information Technology Scheme: **III**  
Regular/Supplementary Examination: LY Semester: **III**  
Course Code: **ITC305** and Course Name: Software Engineering

Date of Exam: **07-02-25**      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>	10		
a)	Explain constructor and method overloading concept in java programming		CO1	U
b)	Explain incremental software development model		CO2	U
c)	Analyze software requirement specification (SRS) for any system		CO3	Analyze
<b>Q 2</b>	<b>Solve any two questions out of three: (05 marks each)</b>	10		
a)	Explain and design UML Sequence diagram of order management system		CO4	Create
b)	List and explain any two UML modeling tools to draw UML diagrams		CO5	U
c)	Compare Alpha and Beta testing		CO6	Analyze
<b>Q.3</b>	<b>Solve any two questions out of three. (10 marks each)</b>	20		
a)	Explain Multithreading concept with example		CO1	U
b)	Explain spiral software development model		CO2	U
c)	Explain PERT/CPM in details		CO3	U
<b>Q.4</b>	<b>Solve any two questions out of three. (10 marks each)</b>	20		
a)	Explain and design UML Activity diagram of any system		CO4	Create
b)	List and explain Open Source and Free UML Tools		CO5	U
c)	Compare white and Block box testing		CO6	Analyze

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