

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

**FEB 2026**  
~~Nov - Dec 2025~~

. (B. Tech / M. Tech.) Program: B. Tech Scheme I/II/IIB/III: III  
~~Regular~~Supplementary Examination: SY Semester: III  
 Course Code: ITC305 and Course Name: Software Engineering  
 Date of Exam: ~~04/12/2025~~ **7/2/26** 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
Q 1	Solve any <b>two</b> questions out of three: (05 marks each)	10		
a)	List and explain the Features of Java Language.		CO1	U
b)	Explain RAD software development model.		CO2	U
c)	Explain functional and non-functional requirements.		CO3	U
Q 2	Solve any <b>two</b> questions out of three: (05 marks each)	10		
a)	Design use case diagram and activity diagram for online shopping website.		CO4	CR
b)	Explain software project estimation techniques -LOC and FP.		CO3	U
c)	Differentiate between White Box and Black Box Testing based on their techniques, objectives, and effectiveness.		CO6	AN
Q.3	Solve any <b>two</b> questions out of three. (10 marks each)	20		
a)	Describe Nature of software.		CO1	U
b)	Explain Spiral software development model with neat labeled diagram. Describe advantages, disadvantages and application.		CO2	U
c)	Analyze the Software Requirements Specification (SRS) of Hospital management System in detail.		CO3	AN
Q.4	Solve any <b>two</b> questions out of three. (10 marks each)	20		
a)	Draw sequence diagram, class diagram for online banking system.		CO4	CR
b)	i) Explain cloud based UML tools. ii) Explain applications of UML tools.		CO5	U
c)	Analyze strategies for conventional software testing.		CO6	AN

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