

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

Subject Code: CEC502

Subject Name: Software Engineering

Date: ~~07/12/2022~~ 05-12-2022

Nov – Dec 2022
 (B.Tech / M.Tech.) Program: B.E.(Computer Engineering)
 Examination: FY/SY/TY/LY Semester: I/II/III/IV/V/VI/VII/VIII
 Course Code: CEC502 and Course Name: Software Engineering
 Duration: 2.5 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 six questions out of eight:	12		
i)	Differentiate in between waterfall and spiral model.	2	CO1	U
ii)	Explain any one agile methodology.	2	CO2	U
iii)	List different software metrics.	2	CO3	U
iv)	Explain class diagram with it's notations and relationships in detail.	2	CO4	U
v)	Explain validation testing with example.	2	CO5	U
vi)	Explain risk management with example.	2	CO6	U
vii)	Illustrate design principles.	2	CO4	U
viii)	Describe SCM tasks.	2	CO6	U
Q.2	Solve any four questions out of six.	16		
i)	Explain Coupling and Cohesion. Explain types of coupling with example.	4	CO1	U
ii)	What do you mean by requirements? Explain Functional and Non-Functional requirements in detail.	4	CO2	U
iii)	Prepare GANTT chart for online book store.	4	CO3	C
iv)	What are the differences between Process oriented design and Data oriented design ? Explain it.	4	CO4	U
v)	Identify any eight test cases for E- Commerce application. Represent in tabular format.	4	CO5	Ap
vi)	Explain risk with proactive and reactive risk.	4	CO6	C

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Q.3	Solve any two questions out of three.	16		
i)	Discuss Incremental model and prototype model for software development with merits and demerits.	8	CO2	U
ii)	Elaborate COCOMO model of cost estimation.	8	CO3	U
iii)	What is RMMM plan? Design a sample RMMM plan for a hotel management system.	8	CO6	C
Q.4	Solve any two questions out of three.	16		
i)	Explain SDLC with suitable example.	8	CO1	U
ii)	Explain function point cost estimation technique in detail	8	CO3	U
iii)	Compare and contrast between white box and black box testing.	8	CO5	Ap