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

Subject Code: CEC502   Subject Name: Software Engineering   Date:- 29/05/2023

May-June 2023

(B.Tech) Program: Computer Engineering
Examination:TY   Semester: V
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.

		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight:	12		
i)	Distinguish between Alpha and Beta testing.	2	3	E
ii)	What is reverse engineering?	2	6	U
iii)	What is capability maturity model (CMM)? Explain.	2	1	R
iv)	What are the disadvantages of the spiral model?	2	1	AN
v)	What do you mean by Software Quality Assurance?	2	5	U
vi)	What do you understand by software testing? Why is it necessary?	2	6	AP
vii)	Which are the basic elements to draw DFD?	2	2	U
viii)	State software design principles.	2	4	R
Q.2	Solve any four questions out of six.	16		
i)	Explain different types of architectural styles.	4	3	R
ii)	Develop a Use Case Diagram for Library Management System.	4	4	C
iii)	Explain different types of software maintenance.	4	6	R
iv)	Explain Context Level DFD (Level 0 DFD) with example.	4	1	C
v)	Prepare project schedule with Gantt chart /Timeline chart for Hospital Management System.	4	2	C
vi)	Explain Formal Technical Review(FTR).	4	5	R
Q.3	Solve any two questions out of three.	16		

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i)	Explain types of coupling with examples.	8	3	R
ii)	What do you mean by agility?Explain Extreme Programming(XP) model.	8	1	U
iii)	Explain unit testing with the help of a diagram.	8	4	R
Q.4	Solve any two questions out of three.	16		
i)	Explain the various requirement gathering techniques	8	1	U
ii)	Write a note on the COCOMO model.	8	2	R
iii)	Explain RMMM plan in detail.	8	5	U

BL – Bloom's Taxonomy Levels (1- Remembering, 2- Understanding, 3 – Applying, 4 – Analyzing, 5 – Evaluating, 6 - Creating)

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