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

Subject Code: AIC503 Subject Name: Software Engineering Date:7/12/2022

Nov – Dec 2022

(B. Tech) Program: B.Tech. (Artificial Intelligence and Data Science) Examination: TY Semester: V

Course Code: AIC503 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 Verification and Validation.	2	4	E
ii)	What is re-engineering?	2	6	U
iii)	What are the drawbacks of waterfall model?	2	1	R
iv)	Explain prescriptive process models.	2	1	U
v)	What do you mean by Software Configuration Management?	2	5	U
vi)	What is black box testing?	2	6	R
vii)	Explain Context Level DFD.	2	2	U
viii)	What is functional Independence?	2	3	R
Q.2	Solve any four questions out of six.	16		
i)	Differentiate between Cohesion and Coupling.	4	3	R
ii)	Develop class diagram for Hospital Management System	4	4	C
iii)	Explain adaptive and perfective maintenance.	4	6	R
iv)	Explain non functional requirement for Library Management System	4	1	E
v)	Prepare project schedule with Gantt chart /Timeline chart for Railway Management System.	4	2	C
vi)	Explain Formal Technical Review (FTR).	4	5	R

Q.3	Solve any two questions out of three.	16		
i)	What is risk? Explain different categories of risk with examples.	8	5	R
ii)	What do you mean by agility? Explain scrum model.	8	1	U
iii)	Explain integration testing.	8	4	R
Q.4	Solve any two questions out of three.	16		
i)	Explain types of cohesion with example.	8	3	AN
ii)	Write a note on the COCOMO-II model.	8	2	R
iii)	Explain change control.	8	6	U

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