SHRI RAMSWAROOP MEMORIAL UNIVERSITY

End Semester Examination (2021-22)-Odd Semester

M.Tech(CSE) – I Year (I Sem)	
Course Name: Advanced Software Engineering	**Code: MCS1002**
Time: 02 Hours	**Max Marks: 60**

University Roll No.																
(To be filled by the Student)																

Note: Please read instructions carefully:

a) *The question paper has 03 sections and it is compulsory to attempt all sections.*

b) *All questions of Section A are compulsory; questions in Section B and C contain choice.*

Section A: Very Short Answer type Questions **Attempt all the questions.**		**BL**	**CLO**	**Marks (10)**
1.	Compare and contrast between software engineering and web engineering processes.	BL2	CLO1	02
2.	Explain the role of a web publisher in web engineering. What precautions should be taken by a web publisher?	BL2	CLO2	02
3.	What is the difference between waterfall model and the component based software engineering?	BL1	CLO1	02
4.	Explain the clean room software engineering. Identify two functional specifications of clean room software engineering approach.	BL3	CLO2	02
5.	Classify four important reasons of software crisis. What can be done to mitigate such situations.	BL4	CLO1	02
Section B: Short Answer Type Questions **Attempt any 03 out of 06 questions.**		**BL**	**CLO**	**Marks (30)**
1.	Show how do we transform an informal design to a detailed design? Provide three examples of software projects that would be amenable to the waterfall model.	BL3	CLO2	10
2.	What is reverse engineering? Analyze the impact of reverse engineering on reliability of the software product.	BL4	CLO3	10
3.	Identify the significance and use of requirement engineering and the various steps of requirement engineering.	BL3	CLO3	10
4.	Draw a neat diagram to illustrate the steps of iterative process. Does iteration affect the quality of software design? Give your own justification.	BL4	CLO2	10

5.	A software has 5000 Lines of Code(LOC) with an average complexity level. Discuss the types of testing strategies that will be most appropriate to test the software.	BL3	CLO4	10
6.	Determine four simple ways by which quality of software may be enhanced.	BL5	CLO2	10
Section C: Long Answer Type Questions/Case Study **Attempt any 01 out of 04 questions.**		**BL**	**CLO**	**Marks (20)**
1.	Summarize the differences between Black Box and Glass Box Testing. Do you agree that Glass Box Testing requires higher level of programming expertise? Support your answer with real life examples.	BL5	CLO1	20
2.	Discuss the significance of Formal Technical Review(FTR) in software engineering process. Give a sample report of Formal Technical Review describing all the objectives in detail.	BL6	CLO1	20
3.	Illustrate the main components of requirement specification document. What formal approach will you follow, if any change is to be done in the requirement specification document?	BL4	CLO4	20
4.	Explain the 'Agility Principle'. Why do modern organizations prefer agile design practices to build their software applications? Evaluate the pros and cons of extreme programming approach used in agile development model.	BL5	CLO4	20
