

**CMR ENGINEERING COLLEGE: : HYDERABAD****UGC AUTONOMOUS****II–B.TECH–I–Semester End Examinations (Supply ) – June - 2025****SOFTWARE ENGINEERING****(AI&DS)****[Time: 3 Hours]****[Max. Marks: 70]****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART-A****(20 Marks)**

1. a) Give the limitations of Spiral model. [2M]
- b) Define Software myths. [2M]
- c) What is the purpose of SRS? [2M]
- d) Differentiate context model and behavioral model. [2M]
- e) Define multiplicity. [2M]
- f) How to represent the timeline of the object? [2M]
- g) Define Validation Testing. [2M]
- h) List out different metrics for assessing product quality. [2M]
- i) Define Software Reliability. [2M]
- j) Why to conduct software reviews? [2M]

**PART-B****(50 Marks)**

2. Illustrate CMMI in detail with a neat sketch. [10M]
- OR**
3. Explain evolutionary process models with a neat sketch. [10M]
4. Write Software Requirements Specification for Library Automation. [10M]
- OR**
5. Describe Requirements validation and management in detail. [10M]
6. Draw Class Diagram and Sequence diagram for ATM. [10M]
- OR**
7. Brief Design Engineering in detail. [10M]
8. What are the various types of errors detected in black-box testing and white box testing? [10M]
- OR**
9. Explain metrics for analysis and design model. [10M]
10. Differentiate proactive and reactive risk strategies. [10M]
- OR**
11. Describe metrics for Software Quality. [10M]

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