PVP 23

Code: 23CS3403, 23IT3403

II B.Tech - II Semester – Supplementary Examinations
DECEMBER 2025

SOFTWARE ENGINEERING

(Common for CSE, IT)

Duration: 3 hours Max. Marks: 70

Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each Question carries 10 marks.
4. All parts of Question paper must be answered in one place.

PART – A

1.a)	How does the RAD model differ from traditional development models?
1.b)	What are the major limitations of the Waterfall model?
1.c)	What are the primary complexities in software project management?
1.d)	List the Metrics for Project Size Estimation.
1.e)	Define cohesion and coupling in the context of software design.
1.f)	What is the SA/SD methodology?
1.g)	Define Software Quality.
1.h)	Write about the ISO 9000 quality standards.
1.i)	What is Computer-Aided Software Engineering (CASE)?
1.j)	How does CASE provide support throughout the software life cycle?

PART – B

			Max. Marks
UNIT-I			
2	a)	Describe Spiral model advantages and disadvantages.	5 M
	b)	Explain Notable changes in software development practices.	5 M
OR			
3	a)	Demonstrate Agile development model.	5 M
	b)	Write about Emergence of software engineering.	5 M
UNIT-II			
4	a)	Demonstrate Project Estimation Techniques.	5 M
	b)	Explain Risk Management in Software Projects.	5 M
OR			
5	a)	What are the core principles behind the COCOMO model?	5 M
	b)	What are the essential components of a well-structured Software Requirements Specification (SRS) document?	5 M
UNIT-III			
6	a)	Explain the various stages involved in the software design process.	5 M
	b)	Describe the role of structured analysis in software design.	5 M
OR			

7	a)	Demonstrate the concept of layered arrangement of modules.	5 M
	b)	How do you develop a DFD model for a given system?	5 M
		UNIT-IV	
8	a)	Illustrate the concept of integration testing.	5 M
	b)	What is code review and why is it essential in software development?	5 M
		OR	
9	a)	What is the SEI Capability Maturity Model (CMM)? Describe its different levels and their significance.	5 M
	b)	What is statistical testing in software engineering?	5 M
		UNIT-V	
10	a)	Discuss the scope of CASE tools.	5 M
	b)	Define software maintenance. What are its key characteristics and why is it necessary?	5 M
		OR	
11	a)	Demonstrate the evolution from first-generation CASE tools to second-generation CASE tools.	5 M
	b)	Describe different software maintenance process models.	5 M