USN

RV COLLEGE OF ENGINEERING®
(An Autonomous Institution Affiliated to VTU)
VI Semester B. E. Examinations Sept/Oct– 2024
Common to CS/IS
SOFTWARE ENGINEERING

Time: 03 Hours   *Maximum Marks: 100*
Instructions to candidates:
1. Answer all questions from Part A. Part A questions should be answered in first three pages of the answer book only.
2. Answer FIVE full questions from Part B. In Part B question number 2 is compulsory. Answer any one full question from 3 and 4, 5 and 6, 7 and 8, 9 and 10.

PART-A

			M	BT	CO
1	1.1	Identify the differences between software engineering and system engineering.	02	2	1
	1.2	What are Architectural design, Database design, Interface design and Component selection and design?	02	2	2
	1.3	List and briefly explain any 2 types of UML diagrams.	02	2	2
	1.4	State any four Extreme Programming techniques.	02	1	3
	1.5	Identify any four key variables that affect project management when developing software products.	02	2	4
	1.6	Discuss four factors affecting software pricing	02	2	4
	1.7	The project has a 60% chance of a $100,000 profit and 40% of $100,000 loss. What is Expected Monetary Value for the project?	02	3	3
	1.8	What does it mean to be an agile team?	02	1	4
	1.9	What is Extreme Programming?	02	1	2
	1.10	What are the advantages of Scrum?	02	2	1

PART-B

2	a	What is professional software development? What are the key principles of professional development?	08	2	1
	b	Why is ethics important in software engineering? What are software engineering ethics?	08	2	1
3	a	With the help of a neat diagram, enumerate the common non-functional needs in the creation of a software product.	08	3	1
	b	Identify and discuss the attributes of dependable processes in software engineering.	08	2	1
		OR			
4	a	With the help of a neat diagram , enumerate the principal dependability properties in a software product development	08	3	2
	b	Describe Formal methods and dependability in software engineering	08	2	2
5	a	Discuss two types of Model driven architecture with an example.	08	2	2
	b	Explain the concept of test-driven development. How does it contribute to software quality?	08	2	2

		OR			
6	a	How do architectural views assist in managing the complexity of software design? Provide examples for architectural views.	08	2	3
	b	Discuss the challenges of open source software development. How do these challenges impact the quality and adoption of open- source projects?	08	3	3
7	a	What are the challenges associated with legacy system evolution? Describe the strategies used to address these challenges.	08	2	4
	b	Compare and contrast plan- driven development with agile planning. How do these approaches impact project planning and execution?	08	3	4
		OR			
8	a	What are key factors affecting software pricing and how do different pricing strategies influence software development projects?	08	2	4
	b	Describe the importance of project scheduling in software development. What tools and techniques are commonly used for project scheduling?	08	2	4
9	a	Discuss the key steps involved in risk management for a software project. How does effective risk management contribute to project success?	08	3	4
	b	Discuss how emerging tools and technologies are influencing software engineering practices. Provide any two examples of tools that have recently gained popularity and explain their impact.	08	3	4
		OR			
10	a	Describe the role of team work in software development. What are the key factors that contribute to effective teamwork in software project?	08	2	4
	b	Explain the importance of staying updated with software engineering trends and challenges that come with it. How can development teams effectively observe and integrate these trends?	08	2	4