Course Code: CA210 **Course Name:** Sofrware Engineering

Question Bank **For your Reference only**	
Unit-1: Introduction to software engineering and its Models	
1.	what is Software and Software Engineering? what is the importance of it? why it is needed?
2.	list and explain characteristics of Software.
3.	Explain Layered technology of S.E.
4.	List and explain Generic framework activities of Software engineering.
5.	List and Explain umbrella activities of SE.
6.	what is Software process model? list types of models with its general activities.
7.	List and Explain SDLC model in detail with its diagram. (Spiral model, RAD model, Water fall model, Incremental model, Prototyping model)
8.	What is Requirement Engineering? What is the mechanism of it.
9.	What is Requirements in Software Engineering? How many types of it. List and Explain in detail
10.	List and Explain tasks of Requirement Engineering
11.	Explain Verification and Validation in Terms of Requirement.
12.	What is SRS? List and explain characteristics of SRS.
13.	What is the purpose to create SRS explain in detail.
14.	Explain Customer Requirement and Functional Requirements
15.	Create one SRS of your System.
16.	What is project Management? List task of project management
17.	List and explain management Spectrum in details. Or Explain 4 P's of Management
18.	Explain w5HH Principle
19.	Explain COCOMO Model for project estimation with suitable example
20.	Explain COCOMO Model with its types and its levels.
21.	What is project decomposition? Explain different techniques decomposition.
22.	Explain project Scope management with its principles
23.	Explain the differences between reactive and proactive risk management strategies in software development. Provide examples of each approach.
24.	Define software risk. How do different categories of risks (technical, financial, operational) impact the success of a software project?
25.	Explain the components of a Risk Mitigation, Monitoring, and Management (RMMM) plan
26.	Define quality in the context of software development. How do factors like reliability, maintainability, and usability contribute to software quality?
27.	What are the core objectives of Software Quality Assurance (SQA)? Explain how SQA is implemented throughout the software development lifecycle.
28.	Write a short note on FTR
29.	What is UML? Explain types of UML Diagrams

30.	Define a Use Case Diagram and its purpose in software development. Explain the components of a Use Case Diagram, including actors, use cases, and relationships.
31.	Explain activity diagram with its symbols and example.
32.	Define an Entity-Relationship Diagram (E-R Diagram) and its importance in database design.
33.	Explain the different types of entities, attributes, and relationships in an E-R Diagram.
34.	Design an E-R Diagram for a library management system, including relevant entities and their relationships.
35.	Discuss how different interaction diagrams (Use Case, Sequence, Activity, State, and E-R) can be integrated to provide a comprehensive view of a system.