

Programme: MCA
 Course: Software Engineering
 Course Code:3CIT108
 Enrolment no. _____

 Full Marks: 70
 Time: 3 Hrs.

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
Section I				
1	Short Answer type questions.			4 x 5 = 20
a	Explain the term "software process model".	CO1	Remember	
	or			
b	Describe the primary purpose of the waterfall model in software development.	CO1	Apply	
	Describe the key components of a Software Requirements Specification (SRS) document according to the IEEE standard.	CO2	Understand	
	or			
c	What are the main activities involved in the requirements elicitation and analysis process?	CO2	Understand	
	or			
d	Explain the importance of design quality in software engineering.	CO3	Understand	
	or			
	What are the key elements of an object-oriented design?	CO3	Remember	
d	Define Black Box Testing. What are its primary advantages and limitations?	CO4	Remember	
	or			
	Define process metrics and explain their importance in software engineering.	CO4	Understand	
Section II				
	Long Answer type questions.			3 x 10 = 30
2	Explain the steps involved in the prototyping model. When is it most beneficial to use this model?	CO1	Apply	
	or			
3	Discuss the Spiral Model of software development. How does it combine elements of both design and prototyping in stages?	CO1	Apply	
	Describe the purpose and content of a use case in the context of requirements engineering.	CO2	Understand	
	or			
4	Describe the key activities involved in the requirement engineering process.	CO2	Understand	
	or			
	Describe the differences between a sequence diagram and a collaboration diagram in UML.	CO3	Analyze	
4	or			
	Illustrate the various stages of the software design process. How do you ensure design quality throughout these stages?	CO3	Analyze	
Section III				
	Application based questions			1 x 20 = 20
5	Briefly describe the following types of software testing: Unit Testing, Integration Testing, and System Testing. Provide at least two advantage and two disadvantage of each.	CO4	Analyze	
	or			
5	Outline the key differences between White Box Testing and Black Box Testing. Provide examples of techniques used in each.	CO4	Analyze	

COURSE OUTCOME

- CO1 Decompose the given project in various phases of a lifecycle.
- CO2 Choose appropriate process model depending on the user requirements.
- CO3 Perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.
- CO4 Apply the knowledge, techniques, and skills in the development of a software product.