Course Code: 18CS0522 **R18**

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code: Software Engineering (18CS0522) **Course &Branch:** B.Tech - CSE
Year & Sem: III B.Tech & II-Sem **Regulation :** R18

UNIT –I

Introduction and Introduction to Agility

1	**a**	What is Software Engineering?	[L1][CO1]	**[2M]**
	b	Represent the wearing out nature of Hardware and Software pictorially?	[L5][CO1]	**[2M]**
	c	Name the five activities of the generic process framework?	[L1][CO1]	**[2M]**
	d	What are the umbrella activities present in the software engineering process framework?	[L1][CO1]	**[2M]**
	e	Name some common Agile process models?	[L1][CO1]	**[2M]**
2	Write in detail about the nature of software.		[L2][CO1]	**[10M]**
3	**a**	Discuss characteristics of software.	[L6][CO1]	**[05M]**
	b	Explain any two of the specialized process models.	[L5][CO1]	**[05M]**
4	Explain Framework activities and umbrella Activities of Process framework.		[L5][CO1]	**[10M]**
5	**a**	Define the term Software Engineering – A Layered Technology.	[L1][CO1]	**[03M]**
	b	Examine in detail about Spiral model.	[L4][CO1]	**[07M]**
6	Discuss briefly about different types of software myths.		[L6][CO1]	**[10M]**
7	Explain in detail about the waterfall model and incremental model and problems encountered with them.		[L5][CO1]	**[10M]**
8	Discuss in brief about Unified Process Model with neat diagram.		[L6][CO1]	**[10M]**
9	What is Agile Process? Write a note on Extreme Programming (XP).		[L1,L3][CO1]	**[10M]**
10	**a**	What is Agility? Illustrate any two Agile Process Models.	[L1,L2][CO1]	**[05M]**
	b	Write a note on Agile Unified Process.	[L3][CO1]	**[05M]**

Course Code: 18CS0522 **R18**

UNIT –II

Requirements Analysis and Specification

1	**a**	Define Requirements Engineering?	[L1][CO2]	**[2M]**
	b	List the seven tasks of Requirements Engineering?	[L4][CO2]	**[2M]**
	c	Mention the types of requirements identified by QFD (Quality Function Deployment)?	[L1][CO2]	**[2M]**
	d	What is the Scenario based elements in the Requirements model?	[L1][CO2]	**[2M]**
	e	Define class-based modelling?	[L1][CO2]	**[2M]**
2	Define Requirement Engineering and explain about Requirements Engineering Tasks		[L1][CO2]	**[10M]**
3	How to establish the groundwork for understanding of software requirements.		[L1][CO2]	**[10M]**
4	Illustrate Eliciting Requirements in software requirements gathering.		[L2][CO2]	**[10M]**
5	Write about Requirements analysis elements in detail		[L1][CO2]	**[10M]**
6	How to build Requirements model? Explain Negotiation and Validation requirements.		[L1][CO2]	**[10M]**
7	List various analysis rules of thumb in requirement analysis? Discuss Domain analysis in detail.		[L4][CO2]	**[10M]**
8	Discuss flow -Based Modeling with suitable examples.		[L6][CO2]	**[10M]**
9	Construct Class-Based Modeling briefly.		[L3][CO2]	**[10M]**
10	Write about scenario-based modeling? Also write about the UML models that supplement the usecase.		[L3][CO2]	**[10M]**

Course Code: 18CS0522 **R18**

UNIT –III

Design Concepts and Architectural Design

1	**a**	Define architectural design?	[L1][CO3]	**[2M]**
	b	Name the software quality attributes suggested by Hewlett-Packard?	[L1][CO3]	**[2M]**
	c	Name the software design concepts?	[L1][CO3]	**[2M]**
	d	Define cohesion and coupling?	[L1][CO3]	**[2M]**
	e	Define procedural abstraction and data abstraction?	[L1][CO3]	**[2M]**
2	**a**	What is the Design process? Discuss software quality guidelines and attributes.	[L1][CO3]	**[10M]**
	b	Explain common characteristics in the evolution of software design.	[L2][CO3]	**[10M]**
3	Determine software design concepts in detail.		[L5][CO3]	**[10M]**
4	Describe a Design model with various kinds of elements.		[L2][CO3]	**[10M]**
5	What is Architecture? Explain briefly about Architecture Genres.		[L2][CO3]	**[10M]**
6	List out various types of Architectural styles briefly.		[L4][CO3]	**[10M]**
7	**a**	How to assess alternate Architectural design.	[L1][CO3]	**[05M]**
	b	Identify Architectural patterns.	[L3][CO3]	**[05M]**
8	What is software architecture ? Describe in detail different types of software architectural styles with illustrations.		[L2][CO3]	**[10M]**
9	Explain the following: (i) Design process. (ii) Design model. (iii) Design concepts.		[L5][CO3]	**[10M]**
10	Discuss briefly about Architectural design and their tasks.		[L6][CO3]	**[10M]**

Course Code: 18CS0522 **R18**

UNIT –IV

User Interface Design and Web App Design

1	**a**	What are the three golden rules in interface design?	[L1][CO4]	**[2M]**
	b	What is the difference between Knowledgeable Intermittent users and knowledgeable frequent users?	[L1][CO4]	**[2M]**
	c	What are the design issues to be handled during user interface design?	[L1][CO4]	**[2M]**
	d	Mention the general layout guidelines that must be followed in Webapp interface design?	[L1][CO4]	**[2M]**
	e	What are the options available in implementing the navigation mechanism in Webapps?	[L1][CO4]	**[2M]**
2	Elaborate golden rules to form the basis for a set of user interface design principles.		[L6][CO4]	**[10M]**
3	Explain the following: (i) Briefly explain about user interface design. (ii) Explain interface design workflow for Webapps.		[L5][CO4]	**[10M]**
4	List out various steps of Interface Design.		[L4][CO4]	**[10M]**
5	Examine the elements of interface analysis with examples.		[L4][CO4]	**[10M]**
6	**a**	Explain the rules of user interface design.	[L5][CO4]	**[05M]**
	b	Explain the steps involved in WebApp Interface Design.	[L2][CO4]	**[05M]**
7	**a**	Define five quality attributes of WebApp Design.	[L1][CO4]	**[05M]**
	b	Discuss set of Design goals in WebApp.	[L6][CO4]	**[05M]**
8	Write about the design principles used for the WebApp interfaces.		[L2][CO4]	**[10M]**
9	Give detailed notes on WebApp Design Quality and their goals.		[L2][CO4]	**[10M]**
10	**a**	Design pyramid for WebApps?	[L6][CO4]	**[05M]**
	b	Identify the navigation pathways to access WebApp content and Function?	[L3][CO4]	**[05M]**

Course Code: 18CS0522 **R18**

UNIT –V

Testing and Testing Conventional Applications

1	**a**	Define Verification and Validation?	[L1][CO5]	**[2M]**
	b	What is stub procedure?	[L1][CO5]	**[2M]**
	c	Explain Regression testing.	[L2][CO5]	**[2M]**
	d	What is Debugging?	[L1][CO5]	**[2M]**
	e	Specify the approaches available to design black box test cases?	[L5][CO5]	**[2M]**
2		What is Testing? Explain a number of software testing strategies with neat sketch.	[L2][CO5]	**[10M]**
3	**a**	Explain system testing	[L5][CO5]	**[05M]**
	b	Elaborate a strategic approach to software testing.	[L6][CO5]	**[05M]**
4	**a**	Discuss the process of Art of debugging.	[L6][CO5]	**[05M]**
	b	What is the need of beta testing?	[L1][CO5]	**[05M]**
5		Distinguish between Validation testing and System testing.	[L4][CO5]	**[10M]**
6		Explain about the importance of test strategies in conventional software.	[L5][CO5]	**[10M]**
7	**a**	Write a short note on fundamentals of software testing.	[L3][CO5]	**[05M]**
	b	Describe briefly about White box testing.	[L2][CO5]	**[05M]**
8	**a**	Explain in detail about Black box testing.	[L5][CO5]	**[05M]**
	b	Illustrate Testing Strategies for Object Oriented software	[L2][CO5]	**[05M]**
9	**a**	How to test Specialized Environments, Architectures and Applications.	[L1][CO5]	**[05M]**
	b	Explain boundary value analysis with an example.	[L5][CO5]	**[05M]**
10		Compare white box testing and Black box testing.	[L5][CO5]	**[10M]**

Prepared by:

1. **Dr. B. GeethaVani**
   Professor & Head/CSE
2. **Mr. R.G.Kumar**
   Assoc. Professor/CSE
3. **Mrs. S. Manasa**
   Asst. Professor/CSE