



SIDDARTHA INSTITUTE OF ENGINEERING & TECHNOLOGY::PUTTUR
(AUTONOMOUS)

(Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu)
Puttur -517583, Tirupathi District, A.P. (India)

QUESTION BANK (DESCRIPTIVE)

Subject with Code: AGILE METHODOLOGY (23CS0546)

Course & Branch: CSE

Year & Sem: IV B.Tech & I Sem

Regulation: R23

UNIT-1

AGILE METHODOLOGY

1.	a)	Define Agile Software Development.	[L1] [CO1]	[2M]
	b)	What is the Agile Manifesto?	[L1] [CO1]	[2M]
	c)	Differentiate between Traditional Model and Agile Model.	[L1] [CO1]	[2M]
	d)	Define Agile Documentation.	[L1] [CO1]	[2M]
	e)	What is an Agile Team?	[L1] [CO1]	[2M]
2.	a)	Explain the need for Agile Management in software projects.	[L2] [CO1]	[5M]
	b)	Discuss the key features of Agile Software Development.	[L2] [CO1]	[5M]
3.		Analyze about classification of Agile methods and explain Scrum, XP, Crystal, DSDM, and FDD frameworks.	[L4] [CO1]	[10M]
4.		Illustrate about the principles and its significance of Agile Manifesto.	[L3] [CO1]	[10M]
5.	a)	Describe the four values of Agile Manifesto with examples.	[L2] [CO1]	[5M]
	b)	Discuss the role of Agile Project Management.	[L4] [CO1]	[5M]
6.	a)	Explain Agile Team Interactions and collaboration mechanisms.	[L2] [CO1]	[5M]
	b)	Describe about agility in software design with suitable examples.	[L2] [CO1]	[5M]
7.		Analyze the challenges faced during Agile implementation.	[L4] [CO1]	[10M]
8.	a)	Explain about Agile Capabilities and Values.	[L2] [CO1]	[5M]
	b)	Generalize the concept of Agile Documentation practices.	[L2] [CO1]	[5M]
9.	a)	Examine about agility in software design with suitable examples.	[L3] [CO1]	[5M]
	b)	Discuss the importance of Agile Testing.	[L2] [CO1]	[5M]
10.	a)	Describe the drivers that influence Agile adoption in organizations.	[L2] [CO1]	[5M]
	b)	Discuss Agile capabilities and values in modern software development.	[L2] [CO1]	[5M]

UNIT –II
AGILE PROCESSES

1.	a)	State the phases of Adaptive Software Development (ASD).	[L1] [CO2]	[2M]
	b)	Define Lean Production in Agile software development.	[L1] [CO2]	[2M]
	c)	Define Crystal methodology.	[L1] [CO2]	[2M]
	d)	State the phases of Adaptive Software Development (ASD).	[L1] [CO2]	[2M]
	e)	What is Scrum? List its three major roles.	[L1] [CO2]	[2M]
2.		Explain Adaptive Software Development (ASD) and describe its Speculate–Collaborate–Learn cycle with suitable examples.	[L2] [CO2]	[10M]
3.	a)	Analyze Scrum artifacts and their significance.	[L4] [CO2]	[5M]
	b)	Illustrate about the Crystal methodology and its characteristics.	[L3] [CO2]	[5M]
4.	a)	Discuss about the process flow of Feature Driven Development (FDD).	[L2] [CO2]	[5M]
	b)	Describe the Scrum framework and its key components.	[L2] [CO2]	[5M]
5.		Analyze Extreme Programming (XP) in detail, including its lifecycle, work products, roles, and practices.	[L4] [CO2]	[10M]
6.	a)	Illustrate the role of collaboration in ASD.	[L3] [CO2]	[5M]
	b)	Explain the phases of Adaptive Software Development.	[L2] [CO2]	[5M]
7.	a)	Discuss the core practices of Extreme Programming.	[L2] [CO2]	[5M]
	b)	Describe the work products generated in XP.	[L2] [CO2]	[5M]
8.		Analyze about the Scrum framework, including roles, events, artifacts, and workflow with a neat diagram.	[L4] [CO2]	[10M]
9.		Compare Scrum, Crystal, FDD, ASD, and XP methodologies based on process, team structure, customer involvement, flexibility, and deliverables.	[L5] [CO2]	[10M]
10.	a)	Explain the values of Extreme Programming (XP) and how they contribute to software quality.	[L2] [CO2]	[5M]
	b)	Illustrate the feature list and feature planning activities in Feature Driven Development (FDD).	[L3] [CO2]	[5M]

UNIT-III**AGILITY AND KNOWLEDGE MANAGEMENT**

1	a)	Define Agile Information Systems.	[L1] [CO3]	[2M]
	b)	What is Agile Decision Making?	[L1] [CO3]	[2M]
	c)	List the schools of Knowledge Management proposed by Earl.	[L1] [CO3]	[2M]
	d)	What is Agile Knowledge Sharing?	[L1] [CO3]	[2M]
	e)	Define Knowledge Refinement.	[L1] [CO3]	[2M]
2	a)	Explain the characteristics of Agile Information Systems.	[L2] [CO3]	[5M]
	b)	Describe Agile Decision Making in organizations.	[L2] [CO3]	[5M]
3	a)	Illustrate about the Institutional Knowledge Evolution Cycle.	[L3] [CO3]	[5M]
	b)	Analyze the Knowledge Development and Acquisition stages.	[L4] [CO3]	[5M]
4	a)	Explain Agile Knowledge Sharing techniques.	[L2] [CO3]	[5M]
	b)	Describe the structure and components of a Story Card.	[L2] [CO3]	[5M]
5		Analyze about the Institutional Knowledge Evolution Cycle with a neat diagram and discuss each stage.	[L4] [CO3]	[10M]
6		Describe the challenges of migrating to Agile methodologies and suggest suitable solutions.	[L2] [CO3]	[10M]
7	a)	Explain the Story-Card Maturity Model (SMM).	[L2] [CO3]	[5M]
	b)	Illustrate the role of Knowledge Management in Software Engineering.	[L3] [CO3]	[5M]
8		Analyze Earl's Schools of Knowledge Management and explain their significance in organizations.	[L4] [CO3]	[10 M]
9	a)	Discuss Knowledge Refinement and Distribution processes.	[L2] [CO3]	[5M]
	b)	Illustrate the importance of Managing Software Knowledge.	[L3] [CO3]	[5 M]
10	a)	Analyze about how Agile methodologies improve knowledge management.	[L4] [CO3]	[5 M]
	b)	Compare Knowledge Distribution and Knowledge Deployment.	[L5] [CO3]	[5 M]

UNIT –IV
AGILITY AND REQUIREMENTS ENGINEERING

1.	a)	Define Agile Requirements Engineering (RE).	[L1] [CO4]	[2M]
	b)	What is meant by Requirements Elicitation in Agile?	[L1] [CO4]	[2M]
	c)	What is Agile Requirements Prioritization?	[L1] [CO4]	[2M]
	d)	What is concurrency in Agile Requirements Generation?	[L1] [CO4]	[2M]
	e)	What are unstable requirements?	[L1] [CO4]	[2M]
2.		Evaluate approaches for handling evolving requirements in Agile environments.	[L5] [CO4]	[10M]
3.	a)	Explain the impact of Agile processes on Requirements Engineering (RE).	[L2] [CO4]	[5M]
	b)	Describe major Agile RE practices with examples.	[L4] [CO4]	[5M]
4.	a)	Discuss the overview of Requirements Engineering using Agile methodology.	[L3] [CO4]	[5M]
	b)	Illustrate the challenges of managing unstable requirements in Agile projects.	[L3] [CO4]	[5M]
5.		Evaluate Agile modeling and abstraction techniques for effective requirements engineering.	[L5] [CO4]	[10M]
6.	a)	Explain the Requirements Elicitation process in Agile software development.	[L2] [CO4]	[5M]
	b)	Describe the Agile Requirements Abstraction Model with a suitable diagram.	[L2] [CO4]	[5M]
7.	a)	Analyze the importance of Agile Requirements Prioritization.	[L4] [CO4]	[5M]
	b)	Explain any two techniques used for Agile Requirements Prioritization.	[L2] [CO4]	[5M]
8.		Evaluate different prioritization techniques and recommend appropriate methods.	[L5] [CO4]	[10M]
9.	a)	Describe about concurrency in Agile Requirements Generation with suitable examples.	[L2] [CO4]	[5M]
	b)	Compare traditional Requirements Engineering with Agile Requirements Engineering.	[L4] [CO4]	[5M]
10.		Evaluate concurrent requirement generation and Agile management practices for successful software development.	[L5] [CO4]	[10M]

UNIT V
AGILITY AND QUALITY ASSURANCE

1.	a)	Define Agile Product Development.	[L1] [CO5]	[2M]
	b)	What is Feature Driven Development (FDD)?	[L1] [CO5]	[2M]
	c)	List any four phases of Feature Driven Development.	[L1] [CO5]	[2M]
	d)	What is Test-Driven Development (TDD)?	[L1] [CO6]	[2M]
	e)	What are Agile Metrics? Give any two examples.	[L1] [CO6]	[2M]
2.	a)	Describe the principles of Agile Product Development.	[L2] [CO5]	[5M]
	b)	Discuss about the stages involved in Agile Product Development.	[L2] [CO5]	[5M]
3.		Explain Agile Product Development in detail. Discuss its lifecycle, principles, benefits, and challenges with a neat diagram.	[L2] [CO5]	[10M]
4.		Analyze FDD methodology and justify its suitability for Agile projects.	[L4] [CO5]	[10M]
5.	a)	Illustrate about FDD team roles.	[L3] [CO5]	[5M]
	b)	Describe FDD workflow and activities.	[L2] [CO5]	[5M]
6.	a)	Illustrate the importance of Agile Metrics in software projects.	[L3] [CO6]	[5M]
	b)	Describe any five Agile Metrics commonly used in Scrum projects.	[L2] [CO6]	[5M]
7.	a)	Explain Financial Metrics used in Feature Driven Development.	[L2] [CO6]	[5M]
	b)	Illustrate production metrics using examples.	[L3] [CO6]	[5M]
8.		Explain Agile Metrics in detail. Discuss Velocity, Burn-down Chart, Burn-up Chart, Lead Time, Cycle Time, Cumulative Flow Diagram, and Defect Density with suitable examples.	[L2] [CO6]	[10M]
9.	a)	Illustrate the concept and workflow of Test-Driven Development.	[L3] [CO6]	[5M]
	b)	Describe quality improvement through TDD.	[L2] [CO6]	[5M]
10.	a)	Discuss continuous testing as an Agile quality assurance practice.	[L2] [CO6]	[5M]
	b)	Describe Agile practices adopted in Global Software Development.	[L2] [CO6]	[5M]

Prepared by
K.G.Mohanavalli/Dept of CSE/SISTK