PVP 23

Code: 23AM4602A, 23DS4602A

III B.Tech - II Semester - Regular Examinations - APRIL 2026

SOFTWARE PROJECT MANAGEMENT

(Common for AIML, DS)

Duration: 3 hours Max. Marks: 70

Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each Question carries 10 marks.
4. All parts of Question paper must be answered in one place.

BL – Blooms Level CO – Course Outcome

PART – A

		BL	CO
1.a)	What are the symptoms exhibited by waterfall model in practice?	L2	CO1
b)	What is the software economics?	L2	CO1
c)	Explain about Inception and elaboration phase.	L2	CO1
d)	What is the use of the Test Artifacts?	L2	CO1
e)	Describe about Model.	L2	CO1
f)	What is the use of Workflows in Software Management?	L2	CO1
g)	What is meant by Line-Of-Business?	L2	CO1
h)	Define MTBF.	L2	CO1
i)	Explain about SCRUM.	L2	CO1
j)	Discuss about the Round Trip engineering.	L2	CO1

PART – B

			BL	CO	Max. Marks
UNIT-I					
2	a)	Write about three levels of process and their attributes.	L2	CO1	5 M
	b)	Explain about three generations of software economics leading to the target objective.	L2	CO1	5 M
OR					
3	a)	Write Short notes on Peer Inspection.	L2	CO1	5 M
	b)	Apply the Waterfall Model in practice.	L2	CO2	5 M
UNIT-II					
4	a)	Use the life cycle phases in Engineering and Production stages.	L3	CO3	5 M
	b)	Prepare Specification and Software development plan in management artifacts.	L3	CO3	5 M
OR					
5		Explain in detail about the Principles of Modern Software Management.	L2	CO2	10 M
UNIT-III					
6		Apply the artifacts and life cycle phases associated with each workflow.	L3	CO3	10 M

		OR			
7	a)	Explain about the Major Milestones.	L3	CO3	5 M
	b)	Implement the Pragmatic Planning in WBS.	L3	CO3	5 M
		UNIT-IV			
8	a)	Discuss about the Project Organizations and Responsibilities.	L3	CO3	5 M
	b)	Analyze roles and responsibilities of Line-Of-Business (LOB) organization.	L4	CO4	5 M
		OR			
9		Prioritize the Automation and Tool Components that supports the process workflows.	L4	CO4	10 M
		UNIT-V			
10	a)	Analyze the importance of Agile Software Development.	L4	CO4	5 M
	b)	Examine about the DevOps delivery Pipeline.	L4	CO4	5 M
		OR			
11	a)	Analyze the Capabilities of Agiling.	L4	CO4	5 M
	b)	Evaluate the Tool Stack Implementation.	L4	CO4	5 M

PVP23

Code No: 23AM4602A, 23DS4602A

PRASAD V POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY
(Autonomous)

III B.Tech – II Semester – Regular Examinations – APRIL 2026

SOFTWARE PROJECT MANAGEMENT

Common to CSE (AI&ML) & CSE (Data Science)

Duration: 3 Hours **Max. Marks: 70**

Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each question carries 10 marks.
4. All parts of Question paper must be answered in one place

I-Short Schema PART-A 10 x 2 = 20 Marks

Q.No.	QUESTION	Blooms Level	CO	Max. Marks
1a)	What are the symptoms exhibited by waterfall model in practice?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. • Requirements change frequently after development starts. • Customer feedback is obtained very late.			
1b)	What is software economics?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. Software economics is the study of five basic parameters: **size, process, personnel, environment, and required quality.**			
1c)	Explain about Inception and Elaboration phase.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. **Inception Phase:** Defines project scope and objectives. **Elaboration Phase:** Refines requirements and system architecture.			
1d)	What is the use of the Test Artifacts?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. Test artifacts are documents and deliverables used in software testing.			
1e)	Describe about Model.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. A model is a simplified representation of a system used to understand, analyze, design, and communicate software structure and behavior			
1f)	What is the use of Workflows in Software Management?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. Workflows define the sequence of activities performed during software development.			
1g)	What is meant by Line-Of-Business (LOB)?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. Line-Of-Business (LOB) refers to a specific business area or division responsible for a particular product or service.			

1h)	Define MTBF.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. MTBF (Mean Time Between Failures) is the average operating time between two system failures.			
1i)	Explain about SCRUM.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. SCRUM is an Agile software development framework that divides work into short iterations called sprints.			
1j)	Discuss about the Round Trip Engineering.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. Round Trip Engineering is the process of keeping software design models and source code synchronized automatically			

PART –B 5x10=50 Marks

			Blooms Level	CO	Max. Marks
		UNIT-I			
2	a)	Write about three levels of process and their attributes.	L2	CO1	5 M
	Ans)	3 types with any 3 attributes ----5M Software process can be classified into three levels: 1. Meta process: Defines organizational policies and standards. 2. Macro process: Defines project-level activities. 3. Micro process: Deals with technical activities performed by developers. Any relevant points written in own words may also be considered for full marks.			
	b)	Explain about three generations of software economics leading to the target objective.	L2	CO1	5M
	Ans)	Three generations with any 3 relevant points ----5M Software economics evolved in three generations: ➢ **First Generation**: Focused mainly on hardware cost. ➢ **Second Generation**: Emphasis shifted to software cost and schedule. ➢ **Third Generation**: Focuses on automation, reuse, and iterative development. Any relevant points written in own words may also be considered for full marks.			
		OR			
3	a)	Write Short notes on Peer Inspection.	L2	CO1	5 M
	Ans)	Definition of Peer inspection with any 3 relevant points ----5M Peer inspection is a software review technique where team members examine software artifacts to identify defects. Any relevant points written in own words may also be considered for full marks.			
	b)	Apply the Waterfall Model in practice.	L3	CO2	5 M
	Ans)	Waterfall Model in practice with any 3 relevant points ----5M ➢ The Waterfall Model is a sequential software development process. ➢ It is useful to summarize the characteristics of the conventional process as it has typically been applied, which is not necessarily as it was intended.			

		Any relevant points written in own words may also be considered for full marks.			
		UNIT-II			
4	a)	Use the life cycle phases in Engineering and Production stages.	L3	CO3	5M
	Ans)	Types in Engineering and Production stages.---4M life cycle phases Diagram ---1M Software lifecycle consists of Engineering and Production stages. Engineering Stage: 1. Inception Phase : Defines scope and feasibility. 2. Elaboration Phase: Establishes architecture and removes risks. Production Stage: 3. Construction Phase: Develops software components. 4. Transition Phase: Delivery & release. Any relevant points written in own words may also be considered for full marks.			
	b)	Prepare Specification and Software Development Plan in management artifacts.	L3	CO3	5M
	Ans)	Explanation of Software Specification and Software Development Plan ---5M Management artifacts are important documents used in Software Project Management to plan, monitor, and control software development activities. Two major management artifacts are: 1. Software Specification: A specification is a formal document that clearly describes the software requirements, features, 2. Software Development Plan (SDP): A Software Development Plan is a management document that describes how the software project will be executed, monitored, and controlled. Any relevant points written in own words may also be considered for full marks.			
		OR			
5		Explain in detail about the Principles of Modern Software Management.	L3	CO2	10 M
	Ans)	Explanation of any 5 Principles of Modern Software Management---10M Modern Software Management focuses on iterative development, risk management, and continuous improvement. Any relevant points written in own words may also be considered for full marks.			
		UNIT-III			
6		Apply the artifacts and life cycle phases associated with each workflow.	L3	CO3	10 M
	Ans)	Any 5 Workflows explanation ---10M Software workflows are associated with specific artifacts and lifecycle phases. Any relevant points written in own words may also be considered for full marks.			
		OR			
7	a)	Explain about the Major Milestones.	L3	CO3	5M
	Ans)	Any 2 Major milestones explanation---5M Major milestones are important checkpoints in software project management. 1. Lifecycle Objectives (LCO) 2. Lifecycle Architecture (LCA) 3. Initial Operational Capability (IOC) 4. Product Release (PR) Any relevant points written in own words may also be considered for full marks.			
	b)	Implement the Pragmatic Planning in WBS.	L3	CO3	5M
	Ans)	Any 2 Pragmatic Planning Steps explanation---5M WBS (Work Breakdown Structure) divides a project into manageable tasks.			

		Any relevant points written in own words may also be considered for full marks.			
UNIT-IV					
8	a)	Discuss about Project Organizations and Responsibilities	L3	CO3	5 M
	Ans)	Any relevant points written in own words may also be considered for full marks. Project organization defines the structure of a software project team and specifies the duties and responsibilities of each member involved in the project.			
	b)	Analyze Roles and responsibilities of LOB organization	L4	CO4	5 M
	Ans)	Any 2 relevant role related points---5M Line-Of-Business (LOB) organization refers to a business division responsible for a specific product, service, or business function. In software project management, the LOB organization provides business direction and ensures that the software supports organizational goals.			
OR					
9	a)	Prioritize the Automation and Tool Components supports process workflows.	L4	CO4	10 M
	Ans)	Any 5 Automation and tool components relevant points ---10M Diagram ---2M Automation and tool components play an important role in improving software development efficiency, quality, and productivity. They support different process workflows such as requirements management, design, coding, testing, deployment, and maintenance.			
UNIT-V					
10	a)	Analyze the Importance of Agile Software Development	L4	CO4	5 M
	Ans)	Any 2 points specify the Importance of Agile Software Development –5M Agile Software Development is an iterative and flexible approach used to develop software efficiently with continuous customer involvement and rapid delivery.			
	b)	Examine the DevOps Delivery Pipeline	L4	CO4	5 M
	Ans)	Explanation of DevOps Delivery Pipeline –3M DevOps Delivery Pipeline diagram---2M The DevOps Delivery Pipeline is an automated process that enables continuous software development, integration, testing, deployment, and monitoring.			
OR					
11	a)	Analyze the Capabilities of Agiling?	L4	CO4	5 M
	Ans)	Explanation of any relevant Capabilities of Agile–5M Agiling refers to the effective application of Agile principles and practices in software development. It helps organizations become flexible, adaptive, and customer-focused.			
	b)	Evaluate the Tool Stack Implementation	L4	CO4	5 M
	Ans)	Explanation of any relevant 3 evaluation of Tool Stack–5M Tool stack implementation involves selecting and integrating tools to automate and streamline DevOps processes.			

PVP23

Code No: 23AM4602A, 23DS4602A

PRASAD V POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY
(Autonomous)

III B.Tech – II Semester – Regular Examinations – APRIL 2026

SOFTWARE PROJECT MANAGEMENT

Common to CSE (AI&ML) & CSE (Data Science)

Duration: 3 Hours **Max. Marks: 70**

Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each question carries 10 marks.
4. All parts of Question paper must be answered in one place

II-Long Schema PART-A 10 x 2 = 20 Marks

Q.No.	QUESTION	Blooms Level	CO	Max. Marks
1a)	What are the symptoms exhibited by waterfall model in practice?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. The waterfall model shows the following symptoms in practice: ➢ Requirements change frequently after development starts. ➢ High risk of project failure due to lack of iteration. ➢ Testing is performed only at the end. ➢ Errors discovered late become costly to fix.			
1b)	What is software economics?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. Software economics is the study of five basic parameters: size, process, personnel, environment, and required quality. 1. **The size** of the end product :the number of source instructions 2. **The process** used to produce the end product, in particular the ability of the process to avoid non-value adding activities (rework, bureaucratic delays, communications overhead) 3. **The capabilities** of software engineering personnel, and particularly their experience with the computer science issues and the applications domain issues of the project. 4. **The environment**, which is made up of the tools and techniques available to support efficient software development and to automate the process. 5.**The required quality** of the product, including its features, performance, reliability, and adaptability			
1c)	Explain about Inception and Elaboration phase.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. **Inception Phase:** Defines project scope and objectives and inception phase focuses mainly on critical requirements **Elaboration Phase:** Refines requirements and system architecture and Develops an executable architectural baseline.			

1d)	What is the use of the Test Artifacts?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. ➢ Test artifacts are documents and deliverables used in software testing. ➢ The test artifacts are communicated, engineered, and developed within the same artifact sets as the developed product. ➢ The test artifacts are implemented in programmable and repeatable formats			
1e)	Describe about Model.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. ➢ A model is a simplified representation of a system used to understand, analyze, design, and communicate software structure and behavior. ➢ Models help reduce complexity and improve software development.			
1f)	What is the use of Workflows in Software Management?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. ➢ Workflows define the sequence of activities performed during software development. ➢ They help organize tasks, improve coordination, monitor progress, and ensure systematic project execution.			
1g)	What is meant by Line-Of-Business (LOB)?	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. ➢ Line-Of-Business (LOB) refers to a specific business area or division responsible for a particular product or service. ➢ In software projects, LOB defines business requirements and goals.			
1h)	Define MTBF.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. ➢ MTBF (Mean Time Between Failures) is the average operating time between two system failures. ➢ It is a measure of system reliability.			
1i)	Explain about SCRUM.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. ➢ SCRUM is an Agile software development framework that divides work into short iterations called sprints. ➢ It promotes teamwork, customer feedback, continuous improvement, and faster delivery.			
1j)	Discuss about the Round Trip Engineering.	L2	CO1	2M
Ans)	Any relevant points written in own words may also be considered for full marks. ➢ Round Trip Engineering is the process of keeping software design models and source code synchronized automatically. ➢ Changes in code update the model and changes in the model update the code.			

PART –B 5x10=50 Marks

<table>
<tr><th></th><th></th><th></th><th>Blooms Level</th><th>CO</th><th>Max. Marks</th></tr>
<tr><td colspan="6">UNIT-I</td></tr>
<tr><td rowspan="3">2</td><td>a)</td><td>Write about three levels of process and their attributes.</td><td>L2</td><td>CO1</td><td>5 M</td></tr>
<tr><td>Ans)</td><td colspan="4">Software process can be classified into three levels:
1. Meta process: Defines organizational policies and standards.
2. Macro process: Defines project-level activities.
3. Micro process: Deals with technical activities performed by developers.
<table>
<tr><th>Attributes</th><th>Meta process</th><th>Macro process</th><th>Micro process</th></tr>
<tr><td>Subject</td><td>Line of business</td><td>Project</td><td>Iteration</td></tr>
<tr><td>Objectives</td><td>Line-of-business profitability,</td><td>Project profitability, Risk management, Project</td><td>Resource management, Risk resolution, Milestone budget,</td></tr>
</table></td></tr>
</table>

		Competitiveness	budget, schedule, quality	schedule, quality	
		Audience	Acquisition authorities, customers, Organizational management	Software project managers, Software engineers	Subproject managers, Software engineers
		Metrics	Project predictability, Revenue, market share	On budget, on schedule, Major milestone success, Project scrap and rework	On budget, on schedule, Major milestone progress, Release/iteration scrap and rework
		Concerns	Bureaucracy vs. standardization	Quality vs. financial performance	Content vs. schedule
		Time scales	6 to 12 months	1 to many years	1 to 6 months
		Any relevant points written in own words may also be considered for full marks.			
	b)	Explain about three generations of software economics leading to the target objective.	L2	CO1	5M
	Ans)	Software economics evolved in three generations: ➢ **First Generation**: Focused mainly on hardware cost. ➢ **Second Generation**: Emphasis shifted to software cost and schedule. ➢ **Third Generation**: Focuses on automation, reuse, and iterative development.			

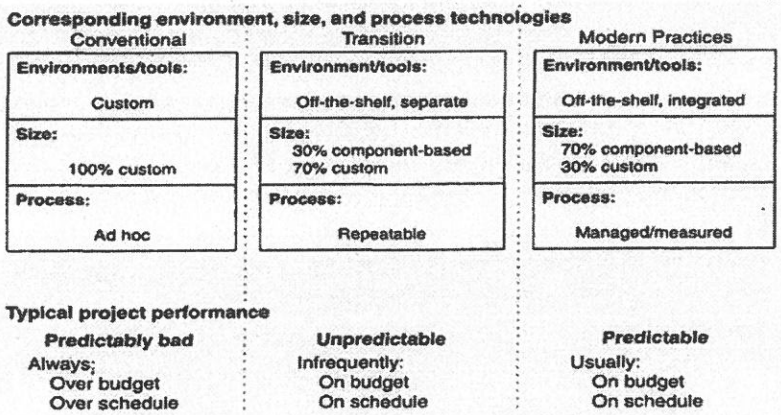
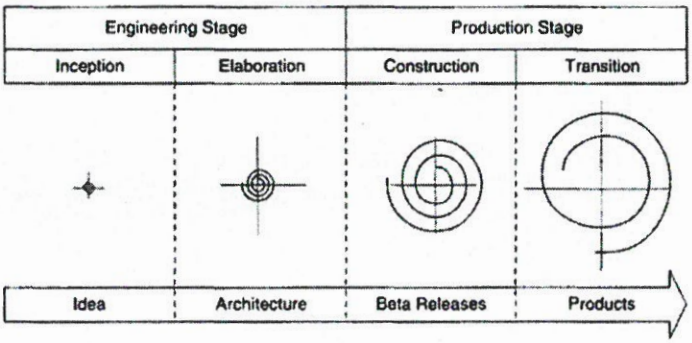


FIGURE 2-1. *Three generations of software economics leading to the target objective*

Any relevant points written in own words may also be considered for full marks.

OR

3	a)	Write Short notes on Peer Inspection.	L2	CO1	5 M
	Ans)	Peer inspection is a software review technique where team members examine software artifacts to identify defects. • Transitioning engineering information from one artifact set to another, thereby assessing the consistency, feasibility, understandability, and technology constraints inherent in the engineering artifacts • Major milestone demonstrations that force the artifacts to be assessed against tangible criteria in the context of relevant use cases • Environment tools (compilers, debuggers, analyzers, automated test suites) that ensure representation rigor, consistency, completeness, and change control • Life-cycle testing for detailed insight into critical trade-offs, acceptance criteria, and requirements compliance • Change management metrics for objective insight into multiple-perspective change trends and convergence or divergence from quality and progress goals Any relevant points written in own words may also be considered for full marks.			

	b)	Apply the Waterfall Model in practice.	L3	CO2	5 M
	Ans)	Waterfall Model in practice with any 3 relevant points ----5M ➢ The Waterfall Model is a sequential software development process. ➢ It is useful to summarize the characteristics of the conventional process as it has typically been applied, which is not necessarily as it was intended. ➢ Protracted integration and late design breakage. ➢ Late risk resolution. ➢ Requirements-driven functional decomposition. ➢ Adversarial (conflict or opposition) stakeholder relationships. ➢ Focus on documents and review meetings. Any relevant points written in own words may also be considered for full marks.			
		UNIT-II			
4	a)	Use the life cycle phases in Engineering and Production stages.	L3	CO3	5M
	Ans)	Types in Engineering and Production stages.---4M life cycle phases Diagram ---1M Software lifecycle consists of Engineering and Production stages. **Engineering Stage:** 1. **Inception Phase:** Defines scope and feasibility. Establishing the project's software scope and boundary conditions, including an operational concept, acceptance criteria, and a clear understanding of what is and is not intended to be in the product 2. **Elaboration Phase:** Establishes architecture and removes risks. Demonstrating that the baseline architecture will support the vision at a reasonable cost in a reasonable time. **Production Stage:** 3. **Construction Phase**: Develops software components. Minimizing development costs by optimizing resources and avoiding unnecessary scrap and rework. 4. **Transition Phase**: Delivery & release Achieving stakeholder concurrence that deployment baselines are complete and consistent with the evaluation criteria of the vision.  FIGURE 5-1. *The phases of the life-cycle process* Any relevant points written in own words may also be considered for full marks.			
	b)	Prepare Specification and Software Development Plan in management artifacts.	L3	CO3	5M
	Ans)	Explanation of Software Specification and Software Development Plan ---5M Management artifacts are important documents used in Software Project Management to plan, monitor, and control software development activities. Two major management artifacts are: **1.Software Specification:** A specification is a formal document that clearly describes the software			

requirements, features, functions, constraints, and performance expectations of the system. It acts as an agreement between the customer and the development team.

Contents in Software Specification:

a) Functional Requirements: Describes what the software should do.

b) Non-Functional Requirements :Performance, Reliability ,Security ,Usability ,Maintainability.

2.Software Development Plan (SDP): A Software Development Plan is a management document that describes how the software project will be executed, monitored, and controlled.

Contents in Software Development Plan (SDP): Project Scope, Project Schedule, Resource Planning

OR

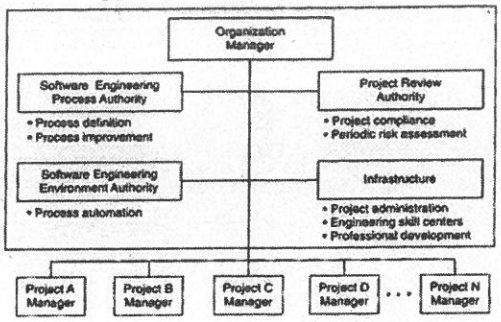
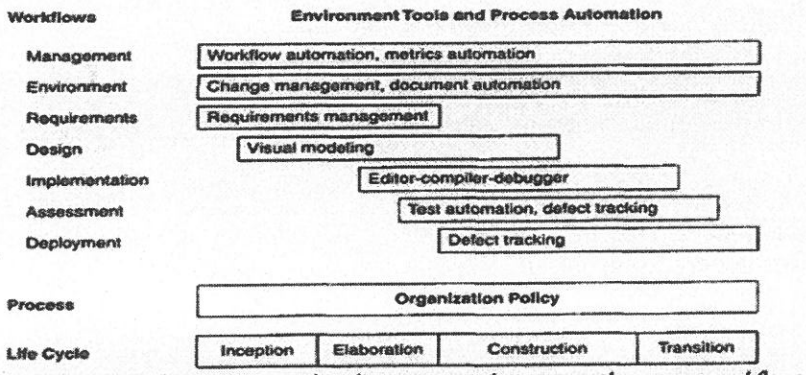
5		Explain in detail about the Principles of Modern Software Management.	L3	CO2	10 M
	Ans)	Explanation of any 5 Principles of Modern Software Management---10M Modern Software Management focuses on iterative development, risk management, and continuous improvement. 1. Base the process on an architecture-first approach. 2. Establish an iterative life-cycle process that confronts risk early 3. Transition design methods to emphasize component-based development. 4. Transition design methods to emphasize component-based development. 5. Enhance change freedom through tools that support round-trip engineering. 6. Capture design artifacts in rigorous, model-based notation. 7. Instrument the process for objective quality control and progress assessment 8. Use a demonstration-based approach to assess intermediate artifacts. 9. Plan intermediate releases in groups of usage scenarios with evolving levels of detail 10. Establish a configurable process that is economically scalable Any relevant points written in own words may also be considered for full marks.			

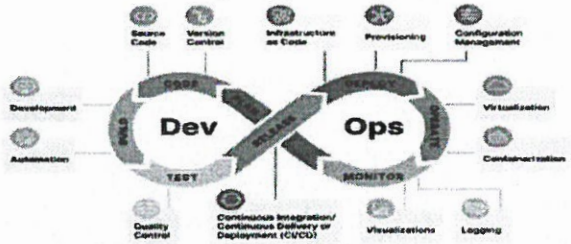
UNIT-III

6		Apply the artifacts and life cycle phases associated with each workflow.	L3	CO3	10 M
	Ans)	Any 5 Workflows explanation ---10M Software workflows are associated with specific artifacts and lifecycle phases.			

WORKFLOW	ARTIFACTS	LIFE-CYCLE PHASE EMPHASIS
Management	Business case	Inception: Prepare business case and vision
	Software development plan	Elaboration: Plan development
	Status assessments	Construction: Monitor and control development
	Vision	Transition: Monitor and control deployment
	Work breakdown structure	
Environment	Environment	Inception: Define development environment and change management infrastructure
	Software change order database	Elaboration: Install development environment and establish change management database
		Construction: Maintain development environment and software change order database
		Transition: Transition maintenance environment and software change order database
Requirements	Requirements set	Inception: Define operational concept
	Release specifications	Elaboration: Define architecture objectives
	Vision	Construction: Define iteration objectives
		Transition: Refine release objectives
Design	Design set	Inception: Formulate architecture concept

			Architecture description	Elaboration: Achieve architecture baseline		
				Construction: Design components		
				Transition: Refine architecture and components		
		Implementation	Implementation set	Inception: Support architecture prototypes		
			Deployment set	Elaboration: Produce architecture baseline		
				Construction: Produce complete componentry		
				Transition: Maintain components		
		Assessment	Release specifications	Inception: Assess plans, vision, prototypes		
			Release descriptions	Elaboration: Assess architecture		
			User manual	Construction: Assess interim releases		
			Deployment set	Transition: Assess product releases		
		Any relevant points written in own words may also be considered for full marks.				
		OR				
7	a)	Explain about the Major Milestones.		L3	CO3	5M
	Ans)	Any 2 Major milestones explanation---5M Major milestones are important checkpoints in software project management. 1. Lifecycle Objectives (LCO): Occurs at end of Inception phase. Confirms project scope and feasibility. 2. Lifecycle Architecture (LCA): Occurs at end of Elaboration phase. Validates architecture and major risks. 3. Initial Operational Capability (IOC): Occurs at end of Construction phase. Product becomes ready for deployment. 4. Product Release (PR): Occurs at end of Transition phase. Final product delivered to users. Any relevant points written in own words may also be considered for full marks.				
	b)	Implement the Pragmatic Planning in WBS.		L3	CO3	5M
	Ans)	Any 2 Pragmatic Planning Steps explanation---5M WBS (Work Breakdown Structure) divides a project into manageable tasks. **Pragmatic Planning Steps:** ➢ Identify project objectives. ➢ Divide project into phases. ➢ Break phases into smaller tasks. ➢ Assign responsibilities. ➢ Estimate time and cost. ➢ Track progress regularly. Any relevant points written in own words may also be considered for full marks.				
		UNIT-IV				
8	a)	Discuss about Project Organizations and Responsibilities		L3	CO3	5 M
	Ans)	➢ **Organizations** engaged in software Line-of-Business need to support projects with the infrastructure necessary to use a common process. ➢ **Project** organizations need to allocate artifacts & responsibilities across project team to ensure a balance of global (architecture) & local (component) concerns. ➢ **The organization** must evolve with the WBS & Lifecycle concerns. ➢ **Software lines of business &product teams have different motivation.** ➢ **Software lines of business** are motivated by return of investment ROI), new business discriminators, market diversification &profitability. ➢ **Project teams** are motivated by the cost, Schedule &quality of specific deliverables Project organization defines the structure of a software project team and specifies the duties and responsibilities of each member involved in the project. Any relevant points written in own words may also be considered for full marks.				
	b)	Analyze Roles and responsibilities of LOB organization		L4	CO4	5 M
	Ans)	Any 2 relevant role related points---5M				

		Line-Of-Business (LOB) organization refers to a business division responsible for a specific product, service, or business function. In software project management, the LOB organization provides business direction and ensures that the software supports organizational goals.  FIGURE 11-1. *Default roles in a software line-of-business organization*			
		OR			
9	a)	Prioritize the Automation and Tool Components supports process workflows.	L4	CO4	10 M
	Ans)	Any 5 Automation and tool components relevant points ---8M Diagram ---2M Automation and tool components play an important role in improving software development efficiency, quality, and productivity. They support different process workflows such as requirements management, design, coding, testing, deployment, and maintenance.  FIGURE 12-1. ***Typical automation and tool components that support the process workflows***			
		UNIT-V			
10	a)	Analyze the Importance of Agile Software Development	L4	CO4	5 M
	Ans)	Any 2 points specify the Importance of Agile Software Development –5M Agile Software Development is an iterative and flexible approach used to develop software efficiently with continuous customer involvement and rapid delivery. Importance of Agile Software Development: 1. Faster Software Delivery 2. Flexibility to Requirement Changes 3. Continuous Customer Involvement 4. Improved Software Quality 5. Better Team Collaboration 6. Reduced Project Risk 7. Increased Productivity 8. Customer Satisfaction			
	b)	Examine the DevOps Delivery Pipeline	L4	CO4	5 M
	Ans)	Explanation of DevOps Delivery Pipeline –3M			

		DevOps Delivery Pipeline diagram---2M The DevOps Delivery Pipeline is an automated process that enables continuous software development, integration, testing, deployment, and monitoring.  			
		OR			
11	a)	Analyze the Capabilities of Agiling?	L4	CO4	5 M
	Ans)	Explanation of any relevant Capabilities of Agile–5M Agiling refers to the effective application of Agile principles and practices in software development. It helps organizations become flexible, adaptive, and customer-focused. Capabilities of Agiling: 1. Rapid Adaptation to Changes 2. Incremental and Iterative Development 3. Continuous Customer Collaboration 4. Faster Software Delivery 5. Improved Team Collaboration 6. Continuous Testing and Improvement			
	b)	Evalute the Tool Stack Implementation	L4	CO4	5 M
	Ans)	Explanation of any relevant 3 evaluation of Tool Stack–5M Tool stack implementation involves selecting and integrating tools to automate and streamline DevOps processes. 1. Version Control Tools 2. Build Automation Tools 3. Continuous Integration / Continuous Deployment (CI/CD) Tools 4. Project Management Tools			