Code No: R203105B **R20** SET - 1

III B. Tech I Semester Regular/Supplementary Examinations, December -2023
SOFTWARE PROJECT MANAGEMENT
(Computer Science and Engineering)

Time: 3 hours Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
*****

UNIT-I

1. a) Explain the different phases in the waterfall model in detail. [7M]
   b) What is software cost estimation? Why is software cost estimation important? Explain. [7M]

(OR)

2. a) Describe the code optimization techniques be used to reduce the size of a software product. [7M]
   b) How does the principle of maintainability affect the development and maintenance of software systems in conventional software engineering? Explain [7M]

UNIT-II

3. How does the closing phase of the software project management life cycle play a role in project evaluation and lessons learned? Explain [14M]

(OR)

4. Explain some examples of programmatic artifacts used for automated testing, such as unit tests, integration tests, or regression tests. [14M]

UNIT-III

5. a) What is a model-based software architecture (MBSA)? Explain how it differs from traditional software architectures. [7M]
   b) With a neat diagram explain the software process workflow in detail. [7M]

(OR)

6. a) What criteria should be considered when setting up checkpoints in a process? [7M]
   b) What is the work breakdown structure? Explain different types of work breakdown structure. [7M]

UNIT-IV

7. With a neat diagram, explain the default roles in a software line of business organization. [14M]

(OR)

8. Explain in detail about the metric automation and tailoring the process. [14M]

UNIT-V

9. What are the patterns for adopting and spreading Scrum? Explain the 5 phases of Scrum methodology. [14M]

(OR)

10. What is the delivery pipeline process? Explain the various stages involved in Devops pipeline. [14M]

|'''|'|'|''||'''||||

Code No: R203105B **R20** SET - 2

III B. Tech I Semester Regular/Supplementary Examinations, December -2023
SOFTWARE PROJECT MANAGEMENT
(Computer Science and Engineering)

Time: 3 hours Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
*****

UNIT-I

1.	a)	List and explain the advantages and disadvantages of waterfall model.	[7M]
	b)	Describe the common techniques for software cost estimation.	[7M]
		(OR)	
2.	a)	Explain the main considerations when trying to reduce the size of a software product.	[7M]
	b)	How does the principle of reusability impact conventional software engineering practices?	[7M]

UNIT-II

3.		Describe about how does the project execution phase ensure the timely completion of software development?	[14M]
		(OR)	
4.		How do code review tools and related artifacts facilitate collaboration and code quality assurance in software development? Give example	[14M]

UNIT-III

5.	a)	List down thekey benefits of using a model-based approach for designing software architectures.	[7M]
	b)	Explain in detail about the iteration workflows in software project.	[7M]
		(OR)	
6.	a)	Why are checkpoints important in ensuring process compliance and progress?	[7M]
	b)	What is planning guidelines in project management? Explain the different stages of project planning.	[7M]

UNIT-IV

7.		Explain in detail about various project management issues in project organization and responsibilities.	[14M]
		(OR)	
8.		Describe in detail about the life cycle expectation in project control.	[14M]

UNIT-V

9.		Describe in detail about the various patterns for adapting scrum.	[14M]
		(OR)	
10.		With a neat diagram explain the various components of Devops architecture.	[14M]

Code No: R203105B **R20** SET - 3

III B. Tech I Semester Regular/Supplementary Examinations, December -2023
SOFTWARE PROJECT MANAGEMENT
(Computer Science and Engineering)

Time: 3 hours Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
*****

UNIT-I

1.	a)	Can the waterfall model be used in all types of software development projects? Justify your answer.	[7M]
	b)	List and explain the factors that can influence software cost estimation.	[7M]
		(OR)	
2.	a)	How does dynamic linking and resource sharing help in reducing the size of a software product? Explain	[7M]
	b)	List and explain the key principles of conventional software engineering?	[7M]

UNIT-II

3.		List and explain the key deliverables in each phase of the software project management life cycle.	[14M]
		(OR)	
4.		Describe the various strategies for managing artifacts effectively throughout the software development lifecycle.	[14M]

UNIT-III

5.	a)	What are the challenges or limitations of adopting a model-based approach for software architectures? Explain	[7M]
	b)	Describe the purpose of a software process workflow in software project management. What are the key activities in the initiation phase of a software process workflow?	[7M]
		(OR)	
6.	a)	How do checkpoints help in identifying and resolving process bottlenecks?	[7M]
	b)	What is cost and schedule estimation? Give example to explain the various steps involved in estimating the cost.	[7M]

UNIT-IV

7.		With a neat diagram, explain the typical automation and tool components that support the process workflows?	[14M]
		(OR)	
8.		Describe in detail about the pragmatic software metrics in project control.	[14M]

UNIT-V

9.		How can an organization transition towards iterative and agile development? What are the benefits of iterative development?	[14M]
		(OR)	
10.		List down the benefits of using DevOps. What are the key principles of Agile methodology in DevOps?	[14M]

|'''|'|'|''||'''||||

Code No: R203105B **R20** SET - 4

III B. Tech I Semester Regular/Supplementary Examinations, December -2023
SOFTWARE PROJECT MANAGEMENT
(Computer Science and Engineering)

Time: 3 hours Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
*****

UNIT-I

1. a) What is the waterfall model? Why is the waterfall model considered a sequential process? [7M]
   b) Discuss in detail about peer inspections in improving software economis. [7M]

(OR)

2. a) What is the role of compression algorithms in reducing software product size? Explain [7M]
   b) How does the principle of abstraction apply to conventional software engineering? [7M]

UNIT-II

3. Describe in detail about how the software project management life cycle address resource allocation and management. [14M]

(OR)

4. Explain the different types of artifacts generated during the software project management process. [14M]

UNIT-III

5. a) How do model-based software architectures facilitate modularity and reusability in software development? [7M]
   b) List and explain the considerations for managing team collaboration and communication within a software project management workflow. [7M]

(OR)

6. a) Explain general status of plans, requirements and product across the major milestones. [7M]
   b) Explain the planning balance throughout the life cycle. What is pragmatic planning in project management? [7M]

UNIT-IV

7. With a neat diagram, explain the round trip environment in project environment. [14M]

(OR)

8. Give an overview of seven core metrics in managing modern process. [14M]

UNIT-V

9. What is agile software development and how does it differ from traditional development approaches?Explain the key practices and frameworks used in agile software development. [14M]

(OR)

10. What are some commonly used tools for continuous integration and deployment in a tool stack? How can a tool stack help with project management? [14M]

|'''|'|'|''||'''||||