Question Bank on Software Engineering(SE)

UNIT – I

PART – A (2 Marks)

		CO #
1.	What is meant by Software engineering paradigm?	CO1
2.	Give at least two reasons for prototyping is problematic.	CO1
3.	Write a short note on Software Crisis with a relevant example.	CO1
4.	Mention the Advantages and Disadvantages of waterfall model.	CO1
5.	What are the phases encompassed in the RAD model?	CO1
6.	List the task regions in the spiral model.	CO1
7.	What is meant by feasibility study?	CO1
8.	Mention any two non-functional requirements on software to be developed.	CO1
9.	What is meant by requirement validation?	CO1
10.	What is the major distinction between user requirements and system requirements?	CO1

PART – B (10 Marks)

Answer ***ANY FIVE*** the questions	CO

		#
1. a.	What are the major differences between system engineering and software engineering? State and explain the stages that distinguish the two.	CO 1
b.	Explain the functional requirements of any real time project with relevant justifications.	CO 1
2.a.	Explain the spiral model. What are the task regions in the spiral model? How does the customer wins by getting the system or product that satisfies the majority of the customer's needs and the developer wins by working to realistic and achievable budgets and deadline?	CO 1
3. a.	Explain the linear software life cycle model with suitable illustration. Bring out the demerits of this model.	CO 1
b.	Write a short note on RAD model with a neat diagram.	CO 1
4.a.	Describe waterfall, incremental, iterative waterfall, spiral model based on SLCS and compare.	CO 1
b.	List the characteristics of SRS.	CO 1
5. a.	Describe how Software requirements are documented? State the importance of documentation.	
b.	What is Requirement Elicitation? Explain with a neat diagram.	
6.a.	Define a DFD. List any four guidelines for creating DFDs.	
b.	Explain the differences between Functional and Non-functional requirements.	

UNIT – II
PART – A (2 Marks)

1.	What are the criteria for an effective modular system?
2.	List the notations used in Data Flow models.
3.	What are the different types of Cohesion?
4.	List four design principles of a good design.
5.	Distinguish verification and validation.
6.	What are the various types of coupling?
7.	Define White Box Testing.
8.	Define software testing?
9.	What are the objectives of testing?
10.	What are the reasons behind to perform white box testing?

PART – B (10 Marks)

Answer ***ANY FIVE*** the questions		CO #
1. a.	What is meant by Cohesion? Explain the types of Cohesion.	CO2
b.	Which type of coupling is considered best? Justify	CO2
2.a.	What is meant by Coupling? Explain the types of Coupling.	CO2
b.	Why cohesion is high and coupling is low?	CO2
3. a.	What are the four major components of a DFD?	CO2
b.	What are the levels of DFD? How many types of DFD are there?	CO2
4.a.	Draw a Level 0 and Level 1 diagram for Library Management System.	CO2
b.	What do you mean testing? Explain its importance.	C

		O2
5. a.	Explain the Black Box testing in detail	C O2
b.	What is the role of stub and driver in unit testing	C O2
6.a.	Explain the steps involved in White Box testing.	C O2
b.	Write a short note on regression testing.	C O2

UNIT – III
PART – A (2 Marks)

		CO #
1.	Write a short note on conventional software development.	CO 3
2.	What is an artifact? Explain with an example.	CO 3
3.	Write a short note on Management Set in artifact Lifecycle.	CO 3
4.	Discuss about the Inception Phase in artifact evolution.	CO 3
5.	Write a short note on Pragmatic Artifacts	CO 3
6.	Explain the relationship between the parameters in Software Economics	CO 3
7.	Discuss about the Transition Phase in artifact evolution.	CO 3
8.	What is the use of Conventional software management?	CO 3
9.	Discuss about Management perspective and technical perspective of artifacts.	CO 3
10.	What are the modern practices involved in artifact evolution.	CO 3

PART – B (10 Marks)

		CO#
1.a.	Explain the five basic parameters involved in Software Economics.	CO3
b.	Discuss in detail about Engineering Artifacts with examples.	CO3
2.a.	Discuss the three generations of software development with a neat diagram.	CO3
b.	What are the attributes of a good software cost estimate?	CO3
3.a.	Discuss briefly about Predominant Software Cost Estimation.	CO3
b.	How do you reduce the software product size? Discuss with example.	CO3
4.a.	Explain the Life-cycle of software artifacts with a neat diagram.	CO3
b.	Write a short note on peer to peer inspections.	CO3
5.a.	Discuss the life cycle evolution of Artifacts	CO3
b.	Explain about conventional Software Management.	CO3

UNIT – IV

PART – A (2 Marks)

		CO #
1.	Define the term Workflows with an example.	CO 4
2.	Write a short note on inception phase	CO 4
3.	On what factors project teams are being motivated.	CO 4
4.	Discuss about elaboration phase	CO 4
5.	What is the use of Process Automation?	CO 4
6.	Explain the role of construction phase in designing the artifacts	CO 4
7.	Explain the need for Software Metrics in software project management.	CO 4
8.	Write a short note on Quality Indicators.	CO 4
9.	What is meant by Round-trip engineering?	CO 4
10.	What is the need of External stakeholders in process automation?	CO 4

PART – B (10 Marks)

Answer ***ANY FIVE*** the questions		CO #
1. a.	Discuss in detail about Software Process Workflows.	CO 4
b.	Define the terms : i) SEPA ii) PRA iii) SEEA	CO 4
2.a.	Explain in detail about the Iteration Workflows with a neat diagram.	CO 4

b.	Discuss in detail about Software Project Control Panel (SPCP).	CO 4
3. a.	Discuss in detail about Line-Of-Business Organizations with a neat diagram.	CO4
b.	What are the tools available to automate the software development process? Discuss.	CO4
4.	Explain in brief Default project organization and responsibilities with a neat sketch.	CO4
5. a.	Discuss in detail Evolution Of Organizations with a diagram.	CO4
b.	Explain the terms: a) Metaprocess b) Macroproces c) Microprocess	CO4
6..	Discuss The Seven Core Metrics of Software Project with a diagram.	CO4