**ST.JOSEPH COLLEGE OF ENGINEERING**

 **SOFTWARE ENGINEERING –CS2301**

 **QUESTION BANK**

 **UNIT-1**

 **2 MARKS**

1. What is software engineering?
2. What are the characteristics of the software?
3. Define software process.
4. What are the fundamental activities of a software process?
5. What are the umbrella activities of a software process?
6. What are the merits of incremental model?
7. List the task regions in the Spiral model.
8. What are the drawbacks of spiral model?
9. What is System Engineering?
10. List the process maturity levels in SEIs CMM.
11. Define the computer based system.
12. What does Verification represent?
13. What does Validation represent?
14. What is the use of CMM?
15. Name the Evolutionary process Models.
16. What is meant by Software engineering paradigm?
17. What are the various elements for computer based system?
18. What is Software?
19. What are the various categories of software?
20. What are the challenges in software?

 **16 MARKS**

1. Explain the linear software life cycle model with suitable illustration. Bring out the demerits of this model.
2. How do you differentiate software engineering from system engineering?
3. For each of the types of process models, identify the types of project suitable to implement.
4. Distinguish between verification and validation process.
5. What is meant by generic view of software engineering? Brief it.
6. Explain the process model which is useful when staffing is unavailable for complete implementation.
7. What is the difference between system and computer based system?
8. What is prototyping? Mention its types. Also explain this model with advantages and disadvantages.
9. Define Software process model? Explain any one of it with a neat diagram.
10. Explain the hierarchy of Business process Engineering and product engineering.

 **UNIT-2**

 **2MARKS**

1. What is requirement engineering?
2. What are the various types of traceability in software engineering?
3. Define software prototyping.
4. What are the benefits of prototyping?
5. What are the advantages of evolutionary prototyping?
6. What are the various Rapid prototyping techniques?
7. What is the use of User Interface prototyping?
8. What are the characteristics of SRS?
9. What is data modeling?
10. What is a data object?
11. What are attributes?
12. What is cardinality in data modeling?
13. What does modality in data modeling indicates?
14. What is ERD and DFD?
15. What is a state transition diagram?
16. Define Data Dictionary.
17. What are the elements of Analysis model?
18. What are functional requirements and functional requirements?
19. What is the outcome of feasibility study?
20. What is meant by structural analysis?

 **16 MARKS**

1. With a suitable example explain about the application of use cases in deriving the scenarios.
2. Explain the various prototyping methods and tools used for requirements analysis.
3. Discuss in detail about the elements in data modeling.
4. Differentiate functional and non -functional requirements and explain.
5. Explain the feasibility studies. What are the outcomes? Does it have either explicit or implicit effects on software requirement collection?
6. Describe how software requirements are documented? State the importance of documentation.
7. Explain briefly Functional Modelling.
8. Explain behavioural modelling in detail.
9. Define data dictionary. How the data dictionary is used? Explain in detail.
10. Explain the execution of seven distinct functions accomplished in requirement engineering process.