

### Unit 3:

1. Explain With a neat diagram the flow of Analysis model into the design model.
2. Compare and contrast in between Agile method and iterative development process.
3. Draw an Activity diagram (Process Perspective) for Attendance management system of college.
4. Explain different perspectives to develop various software design models?
5. Design a Use-case diagram and sequence diagram for Attendance management system of college.
6. Develop a Use-case diagram for E-Commerce applications with tabular description.
7. List and explain the principles of Agile methods? Give its applicability and problems involved?
8. Analyze the agile method to develop story card and 3 task cards 2 test cards for credit card balance checking system in banking app. Stakeholders for a given system are 1.Credit card holder 2.Bank 3.Bank employees.
9. Briefly discuss the extreme programming release cycle with a neat diagram.
10. Explain the practices followed in extreme programming
11. Analyze the agile method to develop story card and 3 task cards 2 test cards for website development of college. Stakeholders for a given system are 1.College 2.Student 3.Faculty.
12. Draw sequence diagram for make payment use case in Amazon E-commerce web application.

### UNIT-2: REQUIREMENTS ENGINEERING

1. Distinguish between functional and non-functional requirements with examples.
2. Explain the types of non-functional requirements with examples.
3. List and explain at least 03 functional and 02 Non-functional requirements for Vehicle Toll collection system using Fastag software.
4. Identify any 5 Functional and Non functional requirement for bank and Library System?
5. What are the different metrics for specifying non-functional requirements?
6. What is software requirements document, and who are the users of requirements document?
7. Explain in brief the structure of a requirements document that is based on an IEEE

standard for requirements documents?

8. Reliance industries is planning to start a cinema multiplexes across India. You have been asked to develop a Film ticket reservation system for their multiplexes online. List the system requirements using structured specification format for the same.

9. What is Requirements specification? What possible reasons where all the design information cannot be implemented?

10. What are the different ways of writing system requirements specification?

11. Explain in details the requirements engineering processes with an appropriate diagram?

12. Explain with a neat diagram the different steps in the requirements elicitation and analysis process?

13. What are the various reasons where Eliciting and understanding requirements process is difficult for stakeholders?

## UNIT-1: INTRODUCTION

1. Answer following frequently asked questions about software Engineering? L1 6M

i) Difference between software engineering and system engineering

ii) What are the key challenges facing software engineering

iii) What are the fundamental software engineering activities.

2. Define and Explain the difference between Generic and Customized product with example? L1,2 5M

3. List and Explain the essential attributes of good software? L1,2 4M

4. Define Software Engineering? And Explain the four fundamental activities that are common to all software process? L1,2 6M

5. List and explain Issues that affect many different type of software? 6M

6. Define Software Engineering, List and explain essential attributes of good software? L1,2 6M

7. List and explain any five Software Engineering (ACM/IEEE) Code of Ethics and Professional Practices? L1,2 8M

8. List and Explain the issues related to software engineering ethics? L1,2 5M

9. Define software engineering. Explain any five FAQ of software engineering? L1,2 8M

## UNIT-1: SOFTWARE PROCESSES

1. What is software process model? Explain the types of software process model? 6M

2. Compare agile methodology with waterfall methodology.? L4 6M
3. Differentiate between Waterfall model and Incremental development with relevant example.? L4 8M
4. Explain Reuse oriented developmental model with neat diagram? Also discuss the benefits of this model as compared to waterfall model? L2 10M
5. With a neat diagram explain waterfall model? Explain the problems involved in waterfall model.? L2 10M
6. With a neat diagram explain Incremental development model also mention the benefits and problems involved in Incremental development model.? L2 10M
7. Explain why Boehm's spiral model is an adaptable model that can support both change avoidance and change tolerance activities. In practice, this model has not been widely used. Suggest why this might be the case. ? L2 8M
8. Describe on spiral model advantages and disadvantages ?L2 5M
9. What is prototype? Explain the process of prototype development with diagram? Mention the benefits of using prototype? L2 10M
- 10.What are the two approaches that may be used to reduce the cost of rework?L2 5M
- 11.Explain why incremental development is the most effective approach for developing business software systems. Why is this model less appropriate for real-time systems engineering? L2 8M
- 12.Explain why systems developed as prototypes should not normally be used as production systems? L2