# **Object Oriented Analysis and Design**

#### <u>UNIT-I</u>

## **Short Questions**

Define Model? Why we build Model?
List the Principles of Modeling in UML?
What is the importance of modeling?
Classify structural things?
List the Relationships in the UML?
Define Grouping things?
What are the four aims of modeling?
Justify how to extend the language in controlled ways by using extensibility mechanisms?
Explain about Annotational Thing?
Define generalization with example?

Explain about
a) Structural Things b) Behavioral Things
Explain briefly about diagrams in the UML?
Illustrate the conceptual model of UML in detail?
a) Summarize common mechanisms in UML?
b) Explain in detail about SDLC?
a) Design the architecture of UML?
b) Explain about Object Oriented Modeling?
Explain about Basic building blocks of UML?
Explain briefly about common mechanisms that apply consistent throughout the language?
Explain about Rules in conceptual modeling?
Explain about a)Common divisions b)Extensibility Mechanisms
Explain about Principles of modeling?
What are structural things? Explain briefly?
Explain briefly about
a) Stereotypes b) Tagged values c) Constraints

## UNIT-2

## **Short Questions**

Define Attribute with an example?
Write the steps for modeling primitive types?
What are the common uses of class diagrams?
What are the different kinds of classifiers to help you to model?
List the structural diagrams?
How to control the visibility of the elements owned by a package? Explain?
What is navigation with neat sketch?
Define composition with neat sketch?
Discuss owned elements in packages?
Explain about Multiplicity?

Long Questions
Enumerate the steps to model the semantics of a class?
Enumerate the steps the modeling the distribution of responsibilities in a system.
Explain about Terms and Concepts in advanced Relationships?
Explain the following
Types and Roles b)Importing and Exporting c)Classifiers
Enumerate the steps to model logical database schema?
Draw and Explain the class diagram for an ATM bank system?
a) What is object diagram what are the common properties and uses of object diagrams?
b) With reference to object diagram enumerate the steps to modeling object structures?
Explain the following
a) Modeling structural relationships
b) Modeling single inheritance
Enumerate the steps to model different levels of abstraction.
Enumerate the steps to model the webs of Relationships
Explain about common modeling techniques in packages
Explain about Terms and Concepts in Relationships?
Explain about common modeling techniques in object diagram?

## UNIT-3

## **Short Questions**

Discuss about context?
Define link?
Explain about objects and roles?
Discuss use cases and actors?
Explain messages in UML?
Discuss about Use cases and collaborations?
Explain about Use cases and Flow of Events?
Discuss about Sequencing?
Write common uses of Use case Diagrams?
Distinguish between activity and action states in UML?

Enumerate the steps to model the behavior of an element.
With reference to class diagram enumerate the steps to forward and reverse and engineer?
How to model requirements of a system? Explain with an example?
Enumerate the steps to model Forward and Reverse engineering in Use case diagram?
Explain the following
a) Modeling the context of a system
b) Collaboration diagram
Explain about Modeling flows of control by time ordering?
Enumerate the steps to model the modeling flows of control by organization?
Explain about
a) Modeling a workflow
b) Modeling an operation
Explain about
a) Modeling a Flow of control b) Organizing Use cases
Discuss in detail briefly
a) Transitions b)Branching c)Forking and Joining
Explain about a) Swimlanes b) Object Flow
Illustrate with example about Sequence diagram and collaboration diagram?

#### <u>UNIT-4</u>

#### **Short Questions**

Discuss Call Events?
Explain about Transitions?
What are the different kinds of Events?
Define Event Trigger?
Differentiate Nodes and Components?
What are the common uses and properties of state chart diagram?
Differentiate process and Thread?
Explain about component and classes?
Differentiate import interface and export interface?
Define sterotypes that apply to components?

Enumerate the steps in modeling a family of signals?
Enumerate the steps in modeling reactive objects in state chart diagram.
Enumerate the steps in modeling the lifetime of an object?
Explain the following
a)Advanced states and Transitions
b)Modeling the Timing constraints
Explain about states and substates in state machines?
Enumerate the steps to modeling exceptions in events and signals?
Explain about the following
a) States b) Transitions
Explain about Communication and synchronization with a suitable example?
a) Enumerate the steps to model the modeling multiple flows of control?
b) Enumerate the steps to model the modeling interprocess communication?
Explain the following

- a) Modeling a client server system
- b) Modeling a fully Distributed system
  - a) What is Deployment diagram? With reference to deployment diagram enumerate the steps to model to Reverse engineering?
  - b) Draw a diagram that shows set of nodes and their relations for library management system?

#### **UNIT-5**

#### **Short Questions**

Define Pattern?

Discuss about Artifact?

What are different kinds of patterns?

Define Framework with example?

What is node? How to organize nodes in UML?

Discuss the significance of patterns?

Define simple name and path name in component with neat sketch?

What is an artifact?

Differentiate import interface and export interface?

Define sterotypes that apply to components?

#### **Long Questions**

Draw the following diagrams for the unified library application?

a) Class diagram

b) Use case diagram

Explain the following

a) Mechanisms b) Frameworks

Enumerate the steps to modeling an API?

Explain the following

a)Mechanisms b) Frameworks

Enumerate the steps to model for the source code and Executable Release?

What is component diagram? with reference to component diagram enumerate the steps ton Forward and reverse engineering?

Draw component diagram for ATM bank system?

Enumerate the steps to Modeling the design patterns?

Enumerate the steps to Modeling the architectural patterns?

Enumerate the steps to model embedded system?

Draw Deployment diagram for the ATM bank system?

Explain the following

a) Modeling a client server system

b) Modeling a fully Distributed system

What is Deployment diagram? With reference to deployment diagram enumerate the steps to model to Reverse engineering?

Draw a diagram that shows set of nodes and their relations for library management system?