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MOTHER TERASA COLLEGE OF ARTS AND SCIENCE,

METTUSALAI, ILLUPPUR,

SUBJECT-OOAD AND UML

CLASS-I M.SC [COMPUTER SCIENCE]

**What is an object?**

An object is a combination of data and logic; the representation of some real-world entity.

**2.List out the software development process.**

The software development process consists of  
 Analysis  
 Design   
 Implements

Testing   
 Maintenance.

**3.What is waterfall model?**

The waterfall model is a classical model used in system development life cycle to create a system with a linear and sequential approach.

**4.Define Verification.**

It is a static practice of verifying document, design, code and program.

It does not involve executing the code.

**5.Define Validation.**

It is a dynamic mechanism of validating and testing the actual product.

It always involves executing the code.

**6. What is interaction diagram? Mention the types of interaction diagram.**

Interaction diagrams are diagrams that describe how groups of objects collaborate to get the job done interaction diagrams capture the behavior of the single use case, showing the pattern of interaction among objects.

There are two kinds of interaction models

I) Sequence Diagram, ii) Collaboration Diagram.

**7.What is Collaboration Diagram?**

Collaboration diagram represents a collaboration, which is a set of objects related in a particular context, and interaction, which is a set of messages exchanged among the objects with in collaboration to achieve a desired outcome.

**8. What is Sequence Diagram?**

Sequence diagram is an easy and intuitive way of describing the behaviors of a system by viewing the interaction between the system and its environment.

**9.What is UML?**

Unified modeling language is a set of notations and conventions and diagrams to describe and model an application.

**10.Define Class Diagram.**

The main static structure analysis diagram for the system, it represents the class structure of a system including the relationships between class and the inheritance structure.

**11. Define Activity Diagram.**

A variation or special case of a state machine in which the states are activities representing the performance of operations and the transitions are triggered by the completion of the operations.

**12.Define Start chart Diagram.**

Start chart diagram shows a sequence of states that an object goes through during its life in response to events. A state is represented as a round box, which may contain one or more compartments. The compartments are all optional.

**13.Define Component Diagram?**

A Component diagrams shows the organization and dependencies among a set of components. A component diagrams are used to model the static implementation view of a system. This involves modeling the physical things that reside on a mode, such as executable, libraries, tables, files and documents.

**14.Define Deployment Diagram.**

Deployment Diagram shows the configuration of run-time processing elements and the software components, processes, and objects that live in them.

Deployment diagrams are used to model the static deployment view of a system. A deployment diagram is a graph of modes connected by communication association.

**15.Define Use case modeling?**

Use case modeling is a form of requirements engineering. How to create an SRS in what we might call the “traditional” way. Use case modeling is a different and complementary way of eliciting and documenting requirement

**16. What are the phases of unified Process?**

Inception: Requirements capture and analysis

Elaboration: System and class-level design

Construction: Implementation and testing

Transition: Deployment

**17. What is an Attributes?**

An attribute is a logical data value of an object. It is useful to identify those attributes of conceptual classes that are needed to satisfy the information requirements of the current scenarios under development.

**18. What is an association?**

An association is a relationship between classes (more precisely, instances of those classes) that indicates some meaningful and interesting connection.

**20.What is Generalization?**

Generalization is the activity of identifying commonality among concepts and defining superclass (general concept) and subclass (specialized concept) relationships.

**21. What is Aggregation?**

Aggregation is a vague kind of association in the UML that loosely suggests whole-part relationships (as do many ordinary associations). It has no meaningful distinct semantics in the UML versus a plain association, but the term is defined in the UML.

**22. What is Software Architecture?**

An architecture is the set of significant decisions about the organization of a software system, the selection of the structural elements and their interfaces by which the system is composed, together with their behavior as specified in the collaborations among those elements, the composition of these structural and behavioral elements into progressively larger subsystems, and the architectural style that guides this organization these elements and their interfaces, their collaborations, and their composition.

**23.What is UML Activity Diagrams?**

A UML activity diagram shows sequential and parallel activities in a process. They are useful for modeling business processes, workflows, data flows, and complex algorithms.

**24. How to Apply Activity Diagrams?**

A UML activity diagram offers rich notation to show a sequence of activities, including parallel activities. It may be applied to any perspective or purpose, but is popular for visualizing business workflows and processes, and use cases.

**25. What is Responsibilities?**

The UML defines a responsibility as “a contract or obligation of a classifier”. Responsibilities are related to the obligations or behavior of an object in terms of its role.