

SRI SAI RAM ENGINEERING COLLEGE

DEPARTMENT OF INFORMATION TECHNOLOGY

CS1402 OBJECT ORIENTED ANALYSIS AND DESIGN

CLASS : IT-A

YEAR/SEM : 3rd year / 5th SEM

UNIT-I

2 MARK QUESTIONS

- 1. Differentiate traditional and Object –oriented views of software.**

Traditional views

1. Procedural Programming

2. There exists a race between hardware and software

3. Refinement is complicated

Object-oriented views

1. Modular programming

2. The semantic gap is small

3. Refinement is easier

- 2. Are messages different from function calls? Justify.**

Messages are the means by which objects interact and the objects behave in response to messages. It is a non-specific function call for objects to perform operations. So messages are not different from function calls except messages accompany an object.

- 3. What is an instance? Give an example.**

A class is a set of objects that share a common structure and a common behavior . Objects are the specific instances of a class.

4. **List the relationships among classes.**

- Association
- Inheritance
- Aggregation
- Generalization

5. Distinguish encapsulation and information hiding.

Encapsulation

1. Allows objects to protect their internal data from unauthorized or accidental modification from other objects
2. Example: A car engine

Information Hiding

1. Conceals the internal data and procedures of an object and provides an interface to each object.
2. An ignition indicator

6. What is dynamic binding

The method to be invoked for a message is not known until the time of call or run-time is known as dynamic or late binding

7. What are the four quality measures of system evaluation

- Correspondence
- Correctness
- Validation
- Verification

8. How does abstraction help in managing complexity in software design?

Abstraction is the principle of ignoring those aspects of a subject that are not relevant to the current purpose.

9. Define aggregation.

Aggregation is the typical/whole part relationship which shows the ability of an attribute to be an object itself.

For example

A car is an object. An engine is an object. A wheel is an object. The car object consists of attributes like engine, wheel etc (which are objects themselves). Thus the car is an **aggregation**

10. **Write the benefits of object orientation.**

- Higher level of abstraction
- Lesser semantic gap
- Reusability of code

11. **What is RAD?**

RAD stands for Rapid application development. It is a software development process model in short terms.

12. **What is an object?**

Object is a combination of data and logic. It can be considered as real world entity or conceptual entity.

13. **Define Meta class.**

A meta class is a class whose instances are classes themselves. It consists of the details of the class.

14. **What are the various processes involved in Object oriented software development life cycle?**

- a. Object oriented analysis
- b. Object oriented design
- c. Prototyping
- d. Component based development
- e. Incremental testing

15. List the advantages of Object oriented analysis and design.

- i. Examines the requirements of users in their perspective and design
- ii. Higher level of abstraction
- iii. Reusability
- iv. Iterative development
- v. Continuous testing