**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086**
**(For candidates admitted during the academic year 2011 – 12 & thereafter)**

**SUBJECT CODE: 11CS/MC/OO64**

**B. C. A. DEGREE EXAMINATION, APRIL 2015**
**SIXTH SEMESTER**

**REG. NO. _____**

**COURSE : MAJOR CORE**
**PAPER : OBJECT ORIENTED ANALYSIS AND DESIGN**
**TIME : 30 MINUTES MAX. MARKS: 20**

**SECTION – A**
**TO BE ANSWERED ON THE QUESTION PAPER ITSELF**
**ANSWER ALL QUESTIONS: (20 x 1 = 20)**

**FILL IN THE BLANKS:**

1. A _____ inherits all of the properties and methods defined in its superclass.

2. _____ measures the consistency of the product requirements with respect to the design specification.

3. Wrapping of data and function into a single unit is called _____.

4. _____ is the task of predicting correspondence.

5. _____ diagrams capture the behavior of a single use case, showing the pattern of intersection among objects.

6. The process of determining at compile time which functions to invoke is termed as _____.

7. The term SQA stands for _____.

8. A _____ is an abstract representation of a system, constructed to understand the system prior to build or modify.

9. _____ is a proposition that may not be self-evident but can be proven from accepted axioms.

10. An association class is an association that also has_____ properties.

**CHOOSE THE BEST ANSWER:**

11. The fact that the same operation may apply to two or more classes is called_____

a) Inheritance b) Polymorphism c) Encapsulation d) Multiple inheritance.

12. Composition is a stronger form of _____.

a) Aggregation b) encapsulation c) inheritance d) all the above

13. A UML diagram includes which of the following?

a) Class name b) attributes c) operations d) all of the above

14. A constructor operation does _____.

a) Creates a new instance b) update an existing instance

c) Deletes an existing instance d) insert an instance.

15. A object diagram is similar to _____ diagram.

a) Activity b) Class c) Use case d) Sequence.

16. In _____, types of all variables and expressions are not known until runtime

a) Strong coupling b) Weak coupling

c) Static binding d) Dynamic binding

17. The independence axiom is to _____ the independence of components.

a) Minimize b) Maximize c) Maintain d) Inherit

18. _____ is used to specify the accessibility only to operations of the class.

a) + b) # c) - d) *

19. _____method copies the contents of one instance to another instance.

a) Conversion method b) Coupling method

c) Copy method d) Cohesion

20. _____ is a set of objects that share a common structure and a common behavior.

a) Attribute b) Class c) Subclass d) Identity

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**TIME : 2 ½ HOURS MAX. MARKS: 80**

## SECTION – B

**ANSWER ALL QUESTIONS: (5 x 2 = 10)**

1. Define the term: Aggregation.
2. What are the most common sources of requirement difficulty?
3. What is 80-20 rule?
4. What is coupling? Mention its type.
5. Define Encapsulation leakage.

## SECTION – C

**ANSWER ANY EIGHT QUESTIONS: (8 x 5 = 40)**

6. Explain briefly about class hierarchy.
7. Differentiate Patterns from frameworks.
8. Write a short note on a) N-Ary Association b) Generalization.
9. What are the different types of prototype? Explain.
10. What are the guidelines for developing effective documentation?
11. What is Super-Sub relationship? Describe a best method for identifying Super-Sub relationship.
12. Explain any two types of coupling.
13. Discuss about Design patterns.
14. Write a short note on Class visibility.
15. What are the five rules to avoid bad design? Explain.

## SECTION – D

**ANSWER ANY THREE OF THE FOLLOWING (3x10=30)**

16. Explain in detail about Object relationships and Associations.
17. Analyze and draw the Use case diagram and Activity diagram for a Railway reservation system.
18. What is relationship analysis? Discuss in detail with an example.
19. Explain in detail how the axioms and corollaries are used in designing user interface.
20. Elaborate the design methods for the bank object.

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