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B.E. DEGREE EXAMINATIONS: NOVEMBER 2009

Fourth Semester

COMPUTER SCIENCE AND ENGINEERING

U07CS401: Object Oriented Analysis and Design

Time: Three hours **Maximum Marks: 100**

Answer ALL the Questions:-

PART A (10 x 1 = 10 Marks)

1. Method of Class defines

   A. attributes of an object
   B. behavior of an object
   C. size of an object
   D. property of an object

2. Traditionally, Prototyping was used as

   A. initial version of software
   B. testing performance
   C. Quick and Dirty way of testing
   D. simulation of software.

3. Macro and Micro development process are prescribed by

   A. Booch methodology
   B. Rumbaugh methodology
   C. Jacobson methodology
   D. OMT dynamic model

4. The role that a user plays with respect to system is

   A. Pattern B. Scenario C. Use case D. Actor

5. Use cases are scenarios for

   A. performing validation
   B. performing verifications
   C. understanding System requirements
   D. identifying patterns

6. In an Object Oriented environment, the set of routines are called as

   A. Relationships
   B. Methods
   C. Attributes
   D. Data Members

7. Coupling deals with interactions between

   A. multiple objects or software components
   B. Single object or software component
   C. classes
   D. attributes

8. Constructor

   A. creates objects
   B. destroys objects
   C. defines attributes
   D. invokes methods

9. The testing of individual objects in system is possible by

   A. Black box testing
   B. White Box testing
   C. Top-down testing
   D. Bottom-Up testing

10. User satisfaction testing is the process of

A. testing system performance B. qualifying system

C. quantifying the usability test D. testing goals

PART B (10 x 2 = 20 Marks)

11. Define object and class. What are messages?
12. Define Polymorphism.
13. Define use-case.
14. Define pattern. How does it differ from frame work?
15. List the different types of relationship between objects.
16. What is expansion of CRC? State its significance.
17. What are the types coupling among objects or components possible?
18. Describe single and multiple inheritances.
19. Define debugging.
20. What is ISO definition of usability?

PART C (5 x 14 = 70 Marks)

21. (a) (i) List the characteristic features of object oriented approach. (4)

(ii) Give a brief discussion on object oriented system life cycle. (10)

(OR)

(b) (i) Explain super\subclass hierarchy with example. (7)

(ii) Discuss in detail aggregation and polymorphism with example. (7)

22. (a) (i) Explain Rambaugh's Object Modeling Technique(OMT). (7)

(ii) Define Booch's macro and micro development process. (7)

(OR)

(b) Discuss about various UML diagram types that are focused on a different way to analyze and define the system.

23. (a) Develop use case model for a library management system and explain in detail about various steps followed.

(OR)

(b) Discuss the importance of proper classification. Briefly explain the different approaches used for identifying classes and objects.

24. (a) Explain the object oriented design axioms and corollaries. Give examples.

(OR)

(b) How does object relational database management system provide object persistence? Explain with examples.

25. (a) Explain the macro and micro level process of a view layer design classes with various User Interface design rules used.

(OR)

(b) Explain about software quality, usability and user satisfaction testing.

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(4)

(10)

(7)

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