G 1272 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2012

Seventh Semester

Branch : Computer Science and Engineering/Information Technology.

OBJECT ORIENTED MODELLING AND DESIGN (RT)

(Improvement/Supplementary)

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

Part A

Each question carries 4 *marks.*

1. What are the specialities of object oriented database systems?
2. Why constraints on inheritance are needed in OO based system implementation?
3. Discuss the importance of events and states in dynamic modelling.
4. Explain why functional models are used in a database system.
5. Discuss the top–down approach in database design process.
6. Discuss the problems in handling of global resources shared by many tasks.
7. Discuss the object based design principles.
8. Explain the models used in representing association between entities in the design process.
9. Show the UML diagram for representing iteration in the requirement phase of system design.
10. How the documentation of a test model of a ready to implement database is done using UML?

(10 × 4 = 40 marks)

Part B

Each question carries 12 *marks.*

11. With the help of an EER diagram explain how inheritance is handled in object oriented DBMS. State the various constraints that usually occur.

Or

12. What is meta data? How this is related to DDL? Discuss the meta data in object based RDBMS.
13. How states are used for dynamic modelling? Discuss nested state diagrams.

Or

Turn over

14. State the components of a data flow diagram. Draw and explain the important operations in a data flow diagram related to a savings bank account management.

15. Explain how the system requirement specification in object modelling is analyzed. Discuss the importance of iteration in this process.

Or

16. Explain the need for concurrency control in object database applications. Discuss the features of typical languages for concurrency control.

17. Compare the methodologies for various approaches of object design aimed at interoperability.

Or

18. Discuss how design optimization is done in object design by adjustment of inheritance and other control measures.

19. Explain Jacobson's Model of design. Draw a UML model for this case.

Or

20. Discuss why unified modelling language is commonly used for OO based design documentation. Draw the top levels of UML diagram needed for a library management application.

(5 × 12 = 60 marks]