

B4.3-R4: OBJECT ORIENTED DATABASE MANAGEMENT SYSTEMS

NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours

Total Marks: 100

1.

- a) What is persistent programming language? How do they make object persistent?
- b) Write a short note on object containment.
- c) What is versioning? Why is it important?
- d) What is the difference between overloading and overriding methods?
- e) What is check pointing? Why is it needed?
- f) Explain in brief about the concept of Types and Classes in Object Oriented programming.
- g) How do IS-A and HAS-A relationships help in developing object-oriented design?

(7x4)

2.

- a) What is an object oriented data model?
- b) Discuss the role of OMG in forming standards in OOP technology.
- c) OQL is a typed language. Comment.

(6+6+6)

3.

- a) Under what conditions two objects of the same type are called deep equal? Also describe how is this equality different from shallow equal?
- b) Explain single and multiple inheritances and how Java supports them. Illustrate with suitable examples.
- c) Discuss the need for Object-relational database Systems.

(6+6+6)

4.

- a) What is CORBA? Explain in brief the architecture of CORBA with special reference to ORB, IDL and protocols.
- b) Compare and contrast the features of RDBMS with OODBMS.

(9+9)

5.

- a) Compare and contrast OLTP and OLAP.
- b) What is an XML database? How do you access XML data?
- c) Write a note on Transaction in OODMS.

(6+6+6)

6.

- a) Discuss in detail the advantages and disadvantages of OODBMS.
- b) Explain the differences between triggers and integrity constraints. Illustrate with the help of an example.

(9+9)

7. Write short notes on the followings:

- a) Method invocation in OQL
- b) Security shortcomings in OODBMS
- c) Abstraction and Generalization

(3x6)