

B4.3-R4 : OBJECT ORIENTED DATABASE MANAGEMENT SYSTEMS

NOTE :

Total Time : 3 Hours

Total Marks : 100

1.
 - (a) Give the advantages of Object Oriented Programming.
 - (b) Class diagrams developed using Booch's methodology can serve as the functional specification of a system. Justify your answer.
 - (c) Define Object Definition Language (ODL). What are the attributes of ODL ?
 - (d) What is Object Query Language ? Enumerate its features.
 - (e) Elucidate the technical challenges in Information Integration.
 - (f) Explain the concept of Inheritance in Object Oriented databases.
 - (g) Narrate the shortcomings of Document Type Definitions. (7x4)

2.
 - (a) What is an XML database ? How do you access XML data ?
 - (b) Why are integrity constraints important in Databases ? Explain all types of integrity constraints with examples.
 - (c) Differentiate between Generalization, Specialization and Aggregation. (6+6+6)

3.
 - (a) What is the importance of checkpoints in the Database Management Systems ? How are checkpoints used in the system log file of Database Management Systems ?
 - (b) Compare and Contrast Relational Database Management Systems (RDBMS), Object Relational Database Management Systems (ORDBMS) and Object Oriented Database Systems (OODBMS). You can compare RDBMS & ORDBMS and ORDBMS & OODBMS. (6+12)

4.
 - (a) Compare the Object Oriented features with C++, Smalltalk and Java.
 - (b) How does CORBA function ? Enumerate basic steps for implementing CORBA. (9+9)

5. (a) Elucidate the concepts of Starflake Schema and Snowflake Schema in Data Warehousing. Write down the key differences between Starflake Schema and Snowflake Schema.
- (b) Differentiate between :-
- (i) Method Overloading and Method Overriding
 - (ii) Class Diagram and State Diagram
 - (iii) MOLAP and ROLAP
- (6+12)**
6. (a) What are Virtual Functions ? Explain in detail with one example.
- (b) What is Semi-Structured Data ? Discuss the motivation behind Semi-Structured Data Model.
- (9+9)**
7. (a) Discuss the role of Object Management Group (OMG) in forming standards in OOP technology.
- (b) Enumerate and explain the methods to distinguish between transient and persistent data.
- (9+9)**

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