PCSS22 - Advanced Database

P. Pages : 1

Time : Three Hours

1227

GUG/S/23/10993

Max. Marks : 70

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Notes :
1. Solve **any five** questions.
2. All questions carry equal marks.
3. Due credit will be given to neatness and adequate dimensions.
4. Assume suitable data wherever necessary.

1.	a)	Explain normalization. What are different normal forms. Explain with example.	**8**
	b)	What is the database connectivity? Explain with example.	**6**
2.	a)	Explain the functionality of OLAP and give detailed architectural diagram of OLAP.	**8**
	b)	Differentiate between the following. i) OLAP and OLTP ii) XML documents and objects.	**6**
3.	a)	Differentiate between OLAP and MOLAP.	**8**
	b)	What is distributed query processing? Explain in detail with an example.	**6**
4.		Explain the components of ODMG model.	**14**
5.	a)	What is database crash? Explain different types of recovery approaches.	**6**
	b)	Distinguish between object oriented and object relational databases.	**8**
6.	a)	Explain with neat sketch two tier multiuser transaction processing.	**7**
	b)	What is secure RPC? State the Limitations of it.	**7**
7.	a)	Discuss two phase locking protocols technique for concurrency in detail.	**8**
	b)	Generalize the methods of how the locking is achieved in concurrency control of distributed database.	**6**
8.	a)	Explain data encryption. Discuss the two types of data encryption mechanism used in database security.	**6**
	b)	Write short note on **any two**. i) Temporal database. ii) Web database.	**8**

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