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**Question Paper Code : X 90367**

M.E./M.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020  
Second Semester

Computer Science and Engineering  
CP 7202 – ADVANCED DATABASE

(Common to Computer Science and Engineering (With Specialization in  
Networks) and Information Technology)  
(Regulations 2013)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. How do you reduce the overhead of constructing balanced range partitioned vector ?
2. Differentiate centralized and distributed database system.
3. Define object identity.
4. What are the object database standards ?
5. List the applications of active database.
6. What is TSQL ?
7. Define handoff management.
8. What is text mining ?
9. Mention the objects in RDF data model.
10. What are the query languages available for retrieving data from cloud ?

PART – B

(5×13=65 Marks)

11. a) Explain various parallel version of common relational operations. (13)  
(OR)  
b) i) What is use of persistent messaging in distributed transaction ? Explain. (7)  
ii) How robustness is achieved in distributed databases ? Explain. (6)



12. a) i) Distinguish object oriented and object relational databases. (6)  
ii) What are the mechanisms used for making the object persistent ?  
Explain. (7)
- (OR)
- b) Explain ODMG model with ODL and OQL. (13)
13. a) i) Explain the properties of active rule execution. (7)  
ii) Give details about the statements available in TSQL2. (6)
- (OR)
- b) i) Explain syntax and semantic of datalog languages. (6)  
ii) Write a note on Rule-Rewriting methods. (7)
14. a) Explain the problems of location-dependent data distribution. How the effect the data integrity and data consistency ? Explain your answer. (13)
- (OR)
- b) Explain any two retrieval models used in Information retrieval. (13)
15. a) i) Give the details about storage of XML documents in database. (7)  
ii) Explain type, design and architecture of biological databases. (6)
- (OR)
- b) Why do you need cloud storage ? Describe cloud storage architecture with neat diagram. (13)

**PART – C****(1×15=15 Marks)**

16. a) Develop any schema diagram and represent it in ODL. How do you iterate through all the persistent classes ?
- (OR)
- b) Consider a data warehouse consists of four dimensions Data, spectator, location and game as well as, the two measures Count and 'Charge'. The charge is the fare where the spectator pays watching a game on a given Data spectator may be students, adults or Seniors. Each category having its own charge rate. Illustrate by drawing a star schema for the data warehouse and how many cuboids are needed to build the data cube ?
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