(3 Hours)   **[Total Marks: 80]**

N.B. :   (1) Question No.1 is compulsory

           (2) Attempt any three from the remaining

           (3) Figures to the right indicate full marks

           (4) Assume suitable data if necessary

1		Solve any **four** :-	**20**
	(a)	Draw the neat diagram of query processing.	
	(b)	Describe query evaluation plan.	
	(c)	Compare between SQL and NoSQL.	
	(d)	Write the different parameters for measuring the cost of query.	
	(e)	What is Graph database.	
2	(a)	Discuss the phases of distributed query processing with neat diagram .	**10**
	(b)	Explain Temporal database.	**10**
3	(a)	Explain CAP Theorem NoSQL Databases	**10**
	(b)	XML document of 'Restaurant Menu Card' has food items, categorized into Starters, Drinks, Chinese, South and Punjabi. Each food item element contains name, cost, calories and veg /non-veg flag. Write XML Schema for above XML document.	**10**
4	(a)	Explain MangoDB Sharding.	**10**
	(b)	Explain ACID properties.	**10**
5	(a)	Explain 2PC in detail with neat diagram?	**10**
	(b)	Explain JSON Data Types. Give example of JSON document.	**10**
6	(a)	Explain Spatial Database.	**10**
	(b)	Explain MongoDB CRUD Operations.	**10**

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