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FACULTY OF SCIENCE
B.Sc. (V Semester) Examination
DATA SCIENCE
Paper V(b)
(NoSQL Databases)

Time : 3 Hours]

[Max. Marks : 80

Section A – (Marks: $8 \times 4 = 32$)

1. Answer any **eight** questions:
- Give a brief note on materialized views.
 - What is NoSQL and what is the need of it?
 - Give a brief note on Materialized views.
 - Why should we use version stamps on multiple nodes?
 - Give a short note on quorums.
 - What is relaxing durability?
 - List the suitable use cases where key-value stores are a good fit.
 - List the suitable use cases where document databases are a good fit.
 - List and explain problem spaces where document databases are not the best solution.
 - What is a graph database? Explain it with an example.
 - List and explain the problems where column-family databases are a good fit.
 - What is a column-family data store?

Section B – (Marks: $4 \times 12 = 48$)

Answer **all** questions.

2. (a) What are the benefits of relational databases? List and explain them.
Or
(b) Give a brief note on aggregates.
3. (a) Why we use partitioning and combining? Explain with an example.
Or
(b) List and explain composing Map-Reduce Calculations.
4. (a) List and explain features of Key-value store.
Or
(b) List and explain features of document database.
5. (a) List and explain the features of graph database.
Or
(b) List and explain the features of column-family data store.
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