

Exam. Code : 103205

Subject Code : 1196

B.A./B.Sc. 5<sup>th</sup> Semester

COMPUTER SCIENCE

(Database Mgt. System and Oracle)

Time Allowed—3 Hours]

[Maximum Marks—75

**Note** :— Attempt any **five** questions. All questions carry equal marks. The students can use only non-programmable and non-storage type calculator.

1. Elaborate the three-level architecture of database system. Why we need mappings between the levels ? 15
2. Tabulate the differences between Network and Hierarchical models. 15
3. What are the similarities and differences between relational algebra and relational calculus ? What are the different types of relational calculus ? Discuss in detail. 15
4. What do you mean by normalization ? What are various forms of normalization ? Discuss in detail. 15
5. What are various DDL commands available in SQL ? Explain any 5 commands in detail with their purpose and syntax. 15
6. What is an index ? What are various types of indexes ? How do you create an index ? Explain with the help of an example. 15
7. What is a conditional control ? What are various types of conditional control used in PL/SQL ? 15
8. What does trigger mean ? What are its uses and explain its working ? Make a comparison of before and after trigger. How a trigger can be deleted ? 15