

Assessment Marks Structure and Sample Questions

Marks Structure:

Section	Total Marks	No. of Questions
Technical & Analytical	10	2
Coding	10	2
QA	10	5

Sample Questions:

Section A: Technical & Analytical (10 Marks - 2 Questions)

1. Explain the architecture of Hibernate with a neat diagram. (5 Marks)
2. Compare Hibernate and JDBC. In which scenarios is Hibernate preferred over JDBC? Justify your answer. (5 Marks)

Section B: Coding (10 Marks - 2 Questions)

1. Write a Hibernate entity class `Student` with fields: id, name, email, and course. Use annotations. (5 Marks)
2. Write code to open session, save Student object, and commit transaction using Hibernate. (5 Marks)

Section C: QA (10 Marks - 5 Questions)

1. What is ORM and how does Hibernate implement it? (2 Marks)
2. What are the different types of Hibernate inheritance strategies? (2 Marks)
3. What is the role of hibernate.cfg.xml or hibernate.properties? (2 Marks)
4. What is lazy loading in Hibernate? Give a real-world example. (2 Marks)
5. What are HQL and Criteria API? How are they different from native SQL? (2 Marks)