**Section 1: Basics of Data Modeling (Q1–10)**

1. **What is the purpose of data modeling?** a) Design a website layout  
    b) Define data structures logically and physically  
    c) Write complex queries  
    d) Compress data  
    ✅ **Answer:** b
2. **Which model represents high-level business concepts?** a) Logical Model  
    b) Conceptual Model  
    c) Physical Model  
    d) Data Warehouse  
    ✅ **Answer:** b
3. **Which of the following is NOT a type of data model?** a) Logical  
    b) Physical  
    c) Behavioral  
    d) Conceptual  
    ✅ **Answer:** c
4. **In a relational model, a "table" is also called a:** a) Tuple  
    b) Entity  
    c) Attribute  
    d) Relation  
    ✅ **Answer:** d
5. **What is a surrogate key?** a) A primary key from another table  
    b) A natural key  
    c) A system-generated unique identifier  
    d) A composite key  
    ✅ **Answer:** c
6. **Which of the following is true about primary keys?** a) Can contain nulls  
    b) Must be unique  
    c) Can have duplicate values  
    d) Not required in a table  
    ✅ **Answer:** b
7. **Which type of data model is used for database implementation?** a) Logical  
    b) Conceptual  
    c) Physical  
    d) Unified Modeling  
    ✅ **Answer:** c
8. **An attribute that uniquely identifies a record is called:** a) Foreign key  
    b) Candidate key  
    c) Composite key  
    d) Partial key  
    ✅ **Answer:** b
9. **Which data model defines tables, columns, data types, and indexes?** a) Conceptual  
    b) Logical  
    c) Physical  
    d) Analytical  
    ✅ **Answer:** c
10. **Which modeling approach focuses on how data is stored in the database?** a) Logical  
     b) Conceptual  
     c) Physical  
     d) Semantic

✅ **Answer:** c