--Question Starting--
Match the following NoSQL database features with their characteristics:
1. NoSQL: Data Model and Query Optimization; Different NoSQL Products, Querying and Managing NoSQL; Indexing and Ordering Data Sets; NoSQL in Cloud.
2. Web Programming: HTML, DHTML, XML, Scripting, Java, Servlets, Applets.
3. Programming in C++: Tokens, Identifiers, Variables and Constants; Data types, Operators, Control statements, Functions Parameter Passing, Virtual Functions, Class and Objects; Constructors and Destructors; Overloading, Inheritance, Templates, Exception and Event Handling; Streams and Files; Multifile Programs.
Choose the correct answer from the options given below:
(1) 1-D, 2-A, 3-C
(2) 1-C, 2-B, 3-D
(3) 1-B, 2-D, 3-A
(4) 1-A, 2-C, 3-B
Answer Key: 4
Solution:
? NoSQL databases often prioritize flexible data models such as document, key-value, or graph structures, facilitating indexing and querying across large datasets, especially in cloud environments.
? Web Programming encompasses markup languages like HTML, dynamic HTML (DHTML), markup languages like XML for data interchange, scripting languages for client-side logic, and server-side Java technologies including Servlets and Applets.
? C++ programming involves lexical components (tokens, identifiers), data types, control flow, functions with parameter passing, object-oriented features like classes, inheritance, virtual functions, and advanced features such as templates and exception handling, alongside stream management and multi-file compilation.
Hence, Option (4) is the right answer.

--Question Starting--
2. Match the following query types with their optimization techniques:
1. NOSQL: NOSQL and Query Optimization; Different NOSQL Products, Querying and Managing NOSQL; Indexing and Ordering Data Sets; NOSQL in Cloud.
2. Web Programming: HTML, DHTML, XML, Scripting, Java, Servlets, Applets.
3. Programming in C++: Tokens, Identifiers, Variables and Constants; Data types, Operators, Control statements, Functions Parameter Passing, Virtual Functions, Class and Objects; Constructors and Destructors; Overloading, Inheritance, Templates, Exception and Event Handling; Streams and Files; Multifile Programs.
Choose the correct answer from the options given below:
(1) 1-B, 2-C, 3-D
(2) 1-A, 2-B, 3-C
(3) 1-C, 2-D, 3-A
(4) 1-D, 2-A, 3-B
Answer Key: 1
Solution:
? Query Optimization in NoSQL involves indexing strategies like secondary indexes, ordering data sets based on access patterns, and leveraging cloud scalability features to improve performance.
? Web programming optimizations include minimizing HTML and XML size, efficient scripting, and server-side caching via Java Servlets and Applets.
? C++ optimization techniques include token management, efficient control structures, usage of constructors/destructors for resource management, and leveraging overloading, inheritance, and templates for code reuse and efficiency, along with efficient stream and file handling.
Hence, Option (1) is the right answer.

--Question Starting--
3. Match the following data management features with their related concepts:

1. NOSQL: NOSQL and Query Optimization; Different NOSQL Products, Querying and Managing NOSQL; Indexing and Ordering Data Sets; NOSQL in Cloud.
2. Web Programming: HTML, DHTML, XML, Scripting, Java, Servlets, Applets.
3. Programming in C++: Tokens, Identifiers, Variables and Constants; Data types, Operators, Control statements, Functions Parameter Passing, Virtual Functions, Class and Objects; Constructors and Destructors; Overloading, Inheritance, Templates, Exception and Event Handling; Streams and Files; Multifile Programs.

Choose the correct answer from the options given below:

(1) 1-C, 2-D, 3-B
(2) 1-A, 2-C, 3-D
(3) 1-D, 2-B, 3-A
(4) 1-B, 2-A, 3-C

Answer Key: 4

Solution:

? NoSQL data management features include flexible data models suited for cloud environments, with indexing and ordering capabilities to optimize query performance.
? Web programming involves markup and scripting languages, with Java-based server technologies like Servlets and Applets facilitating dynamic content.
? C++ features such as token processing, variable declaration, control flow, class design, constructors/destructors, overloading, inheritance, templates, exception handling, and stream management constitute core language concepts.

Hence, Option (4) is the right answer.