--Question Starting--
Match the following programming concepts to their corresponding descriptions:
1. Programming Concepts Description
I. Stages in Translation A. Defines the building blocks of a language such as keywords, constants, and operators
II. Programming Environments B. Includes lexical analysis, syntax analysis, semantic analysis, and code generation
III. Tokens C. Supports development by providing tools like editors, debuggers, and compilers
IV. Programming Language Syntax D. Rules and structure for forming correct statements and programs
Choose the correct answer from the options given below:
(1) I-B, II-C, III-A, IV-D
(2) I-D, II-B, III-C, IV-A
(3) I-C, II-A, III-D, IV-B
(4) I-B, II-A, III-D, IV-C
Answer Key: 4
Solution:
? Stages in Translation: This involves the sequence of steps that a program undergoes from source code to executable, including lexical, syntax, semantic analysis, and code generation.
? Programming Environments: These are the tools and software that aid programmers in writing, testing, and debugging their code.
? Tokens: These are the smallest elements of a program, such as keywords, constants, and symbols that are crucial in the construction of statements.
? Programming Language Syntax: This refers to the set of rules that define the structure of valid statements and expressions within a programming language.
Hence, Option (4) is the right answer.

--Question Starting--
Match the following database concepts with their accurate descriptions:
1. Database Concepts Description
I. Functional Dependencies B. Ensures data consistency by eliminating redundancy
II. Concurrency Control Techniques C. Manages access by multiple users in a way that changes made by one do not interfere with those of another
III. Normalization A. Process of organizing data to reduce redundancy and improve data integrity
IV. Transaction Processing D. Ensures the database remains in a consistent state despite failures
Choose the correct answer from the options given below:
(1) I-B, II-C, III-A, IV-D
(2) I-C, II-D, III-B, IV-A
(3) I-B, II-A, III-D, IV-C
(4) I-A, II-C, III-B, IV-D
Answer Key: 4
Solution:
? Functional Dependencies: These are relationships that determine how one object's data depends on another. When properly understood, they play a crucial role in the normalization process.
? Concurrency Control Techniques: These are methods to ensure that database transactions are performed concurrently without causing data inconsistency.
? Normalization: This refers to the process of structuring a relational database in accordance with a series of so-called normal forms in order to reduce data redundancy and improve data integrity.
? Transaction Processing: It is a process that ensures all transactions are executed in a safe, consistent manner and that the database state is kept stable across failures.
Hence, Option (4) is the right answer.

--Question Starting--
Match the following programming elements in C with their descriptions:

1. Programming Elements Description
I. Pointers A. Used for defining a variable that can store the address of another variable
II. Functions B. Block of code designed to perform a particular task
III. Arrays C. Collection of items stored at contiguous memory locations
IV. Preprocessors D. Handles directives for source code compilation before actual compilation
Choose the correct answer from the options given below:
(1) I-A, II-B, III-C, IV-D
(2) I-C, II-D, III-A, IV-B
(3) I-B, II-C, III-A, IV-D
(4) I-D, II-A, III-B, IV-C
Answer Key: 1
Solution:
? Pointers: These are variables that are used to store the address of another variable, allowing for dynamic memory location and manipulation of data structures.
? Functions: Functions are blocks of code that perform specific tasks and can be called upon throughout a program to execute that task.
? Arrays: These are used to store multiple items of the same type together, allowing for efficient data management and access.
? Preprocessors: These are tools that process the source code before it is compiled, handling directives like #include and #define to modify the compilation process.
Hence, Option (1) is the right answer.