--Question Starting--
Match the following syntax analysis techniques with their defining characteristics:
1. Syntax Analysis Technique Characteristic
I. Recursive Descent Parsing A. Uses a top-down approach with predictive capabilities based on lookahead tokens
II. LL(1) Parsing B. Employs a bottom-up shift-reduce methodology with lookahead
III. LR Parser C. Recursive procedures that directly implement a grammar's productions
IV. Bottom-up Parsing D. Handles a class of grammars that are non-LL(1) by constructing parse trees from leaves up
Choose the correct answer from the options given below:
(1) I-C, II-A, III-D, IV-B
(2) I-D, II-B, III-A, IV-C
(3) I-A, II-D, III-B, IV-C
(4) I-B, II-C, III-A, IV-D
Answer Key: 4
Solution:
? Recursive Descent Parsing: It involves recursive procedures directly implementing grammar rules, making it naturally top-down.
? LL(1) Parsing: A specific top-down predictive parsing technique utilizing one lookahead token to decide the production.
? LR Parser: A bottom-up parser that constructs the parse tree from leaves to root, handling a broader class of grammars.
? Bottom-up Parsing: General approach that reduces input strings to start symbols, often employing shift-reduce strategies.
Hence, Option (4) is the right answer.

--Question Starting--
3. Match the following characteristics of Big Data systems with their descriptions:
1. Characteristic of Big Data Description
I. Volume A. Data generated at high velocity from various sources
II. Variety B. The complexity and diversity of data types
III. Velocity C. Massive amount of data that requires scalable storage solutions
IV. Veracity D. Trustworthiness and quality of data, often uncertain
Choose the correct answer from the options given below:
(1) I-C, II-B, III-A, IV-D
(2) I-B, II-C, III-D, IV-A
(3) I-D, II-A, III-C, IV-B
(4) I-C, II-D, III-B, IV-A
Answer Key: 2
Solution:
? Volume: Refers to the large amount of data that necessitates distributed storage and processing.
? Variety: Indicates the different types and sources of data, such as structured, unstructured, multimedia, etc.
? Velocity: Represents the speed at which data is generated and must be processed in real-time or near real-time.
? Veracity: Concerns the trustworthiness and quality, often affected by uncertainty or inconsistency.
Hence, Option (2) is the right answer.