# Explanations

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### Explanation:

## NGS Data Analysis Explained:

* **Data Acquisition:**
* Reads are obtained from a sequencer.
* Data exists in various formats.
* **Quality Control (QC):**
* **A. Evaluation:** Assess the quality of the sequencing data.
* **B. Pre-processing:** Clean and filter the data to improve accuracy.
* **Read Mapping:**
* Align reads to a reference sequence.
* **Applications:**
* **Genome analysis:** Identify variants (SNP, Indel, SV).
* **Transcriptome analysis:** Study gene expression.
* **Epigenomic studies:** Analyze epigenetic modifications.
* **Read Assembly:**
* Construct a new reference genome from the reads.