

## **NEW Organic Chemistry Examination Specifications**

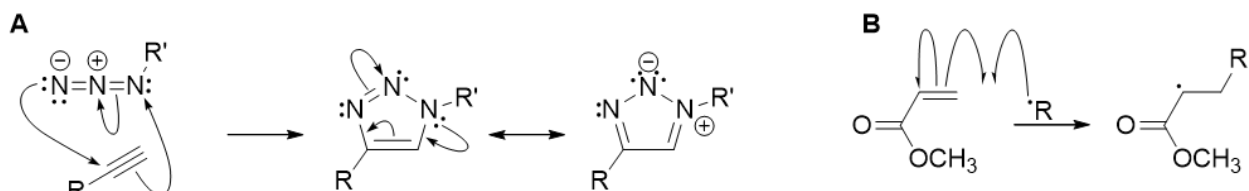
### **Anticipated Implementation – April 2026**

The updated Organic Chemistry examination specifications do not represent major changes to the content that will appear on the examination, but rather includes some updates to topic names that are simpler and more intuitive for test takers along with a more comprehensive list of subtopics. Below are the new Organic Chemistry examination specifications that are anticipated to be implemented in April 2026.

#### Organic Chemistry (30 items)

- Mechanisms
  - Curved Arrows
    - Single Mechanism (Resonance, Free Radical, Proton Transfer, Addition, Elimination, Substitution, Rearrangements, Other (e.g., Diels-Alder))
    - Combined Mechanisms
  - Reaction Coordinate Diagrams
  - General
- Chemical Synthesis
  - One-Step (Substitution (i.e., SN1, SN2), Elimination (i.e., E1, E2), Reactions of Alkenes/Alkynes, Reactions of Alcohols, Reactions of Ethers (incl. Epoxides), Radical Reactions, Reactions of Aromatics, Reactions of Carboxylic Acids/Derivatives, Reactions of Ketones and Aldehydes, Reactions of Alpha-carbonyl Compounds, Other Reactions)
  - Two-Step
  - Multi-Step
  - Reactivity Across Multiple Functional Groups
  - General
- Acid-Base Chemistry
  - Ranking Acidity/Basicity Across Functional Groups
  - Structure Analysis Within Functional Groups (Charge, Size, Electronegativity, Resonance, Inductive Effect, Hybridization, Sterics)
  - Prediction of Products & Equilibria
  - General
- Chemical & Physical Properties of Molecules
  - Structure (Polarity, Intermolecular Forces, Solubility, Melting/Boiling Point, General)
  - Laboratory Theory & Techniques (Chromatography, Extractions, Recrystallization, Distillation, General)
  - Spectroscopy (<sup>1</sup>H NMR, <sup>13</sup>C NMR, Infrared, Multi-spectra, General)
- Structural Evaluation
  - Nomenclature (Functional groups, IUPAC rules)
  - Stereochemistry (Conformations, Isomer relationships, Chirality)
  - Structure & Bonding (Aromaticity, Hybridization, Resonance, Atomic/Molecular Orbitals, Bond Angles/Lengths, Relative Stability/Reactivity)
  - General

Note on Organic Chemistry Mechanisms: The following examples show how curved arrows are used to represent organic chemistry mechanisms on the DAT.



Double/full-headed curved arrows (Figure A) represent the movement of electron pairs. Single/half-headed (fishhook) curved arrows (Figure B) represent the movement of a single electron. Candidates are asked to predict products based on starting materials and curved arrows. Additionally, candidates are asked to predict curved arrow(s) based on starting materials and products.