

Exam Practice Guide

Unit 4

Chemistry

Examination Questions

Key Features:

- ✓ 80 original examination style questions on all examinable topics.
- ✓ Full solutions and a marking guide to all questions.
- ✓ Separated into key topic areas within each Area of Study, enabling students to master one topic at a time.
- ✓ Written by VCE assessors who mark the real examinations.
- ✓ Excellent resource for examination practice.

Helping VCE students be the best they can be.

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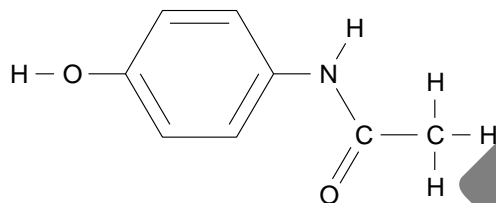
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SAMPLE

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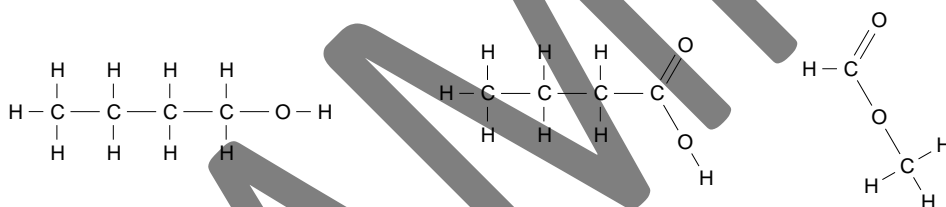
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AREA OF STUDY 1: How can the diversity of carbon compounds be explained and categorised?**Topic 1 – Structure and nomenclature of organic compounds****Question 1**

The molecule above is paracetamol. It is a common analgesic or painkiller.

A molecule of paracetamol contains

- A. a carboxylic acid functional group and an alkanol functional group
- B. an alkene functional group and an ester functional group
- C. an ester functional group and an alkanol functional group
- D. an amide functional group and an alkanol functional group

Question 2

The systematic names for the molecules drawn above are, respectively:

- A. butanol, butanoic acid, ethyl methanoate
- B. butan-1-ol, 1-butanoic acid, methyl methanoate
- C. butan-1-ol, butanoic acid, methyl methanoate
- D. butan-1-ol, 1-butanoic acid, methyl methanoate

Question 3

How many hydrogen atoms are there in a molecule of heptanoic acid?

- A. 7
- B. 14
- C. 16
- D. 17

Question 4

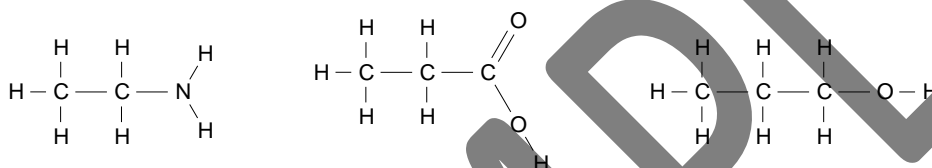
The fourth member of the alkene series is:

- A. Propene
- B. Butene
- C. Pentene
- D. Hexene

Question 5

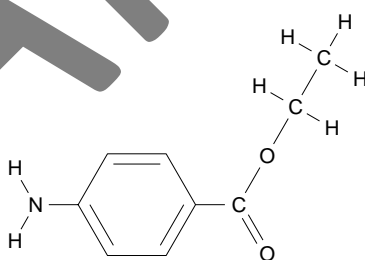
A compound that is a structural isomer of pentanoic acid is

- A. methylbutanoate
- B. 3-pentanoic acid
- C. 2-methylbutanol
- D. 2-methylpentanoic acid

Question 6

The systematic names for the molecules drawn above are, respectively:

- A. ethylamine, propanoic acid, propan-1-ol
- B. ethylamine, 1-propanoic acid, propanol
- C. ethylamine, 1-propanoic acid and 1-propanol
- D. propylamine, propanoic acid and 1-propanol

Question 7

The molecule drawn is the local anaesthetic, ethyl-aminobenzoate. The functional groups in this molecule are

- A. amine and carboxy
- B. amine, hydroxy and carboxy
- C. amine and ester
- D. carboxy and ester