



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

CHEMISTRY N5

(15040015)

23 November 2020 (X-paper)
09:00–12:00

This question paper consists of 6 pages.

217Q1E2023

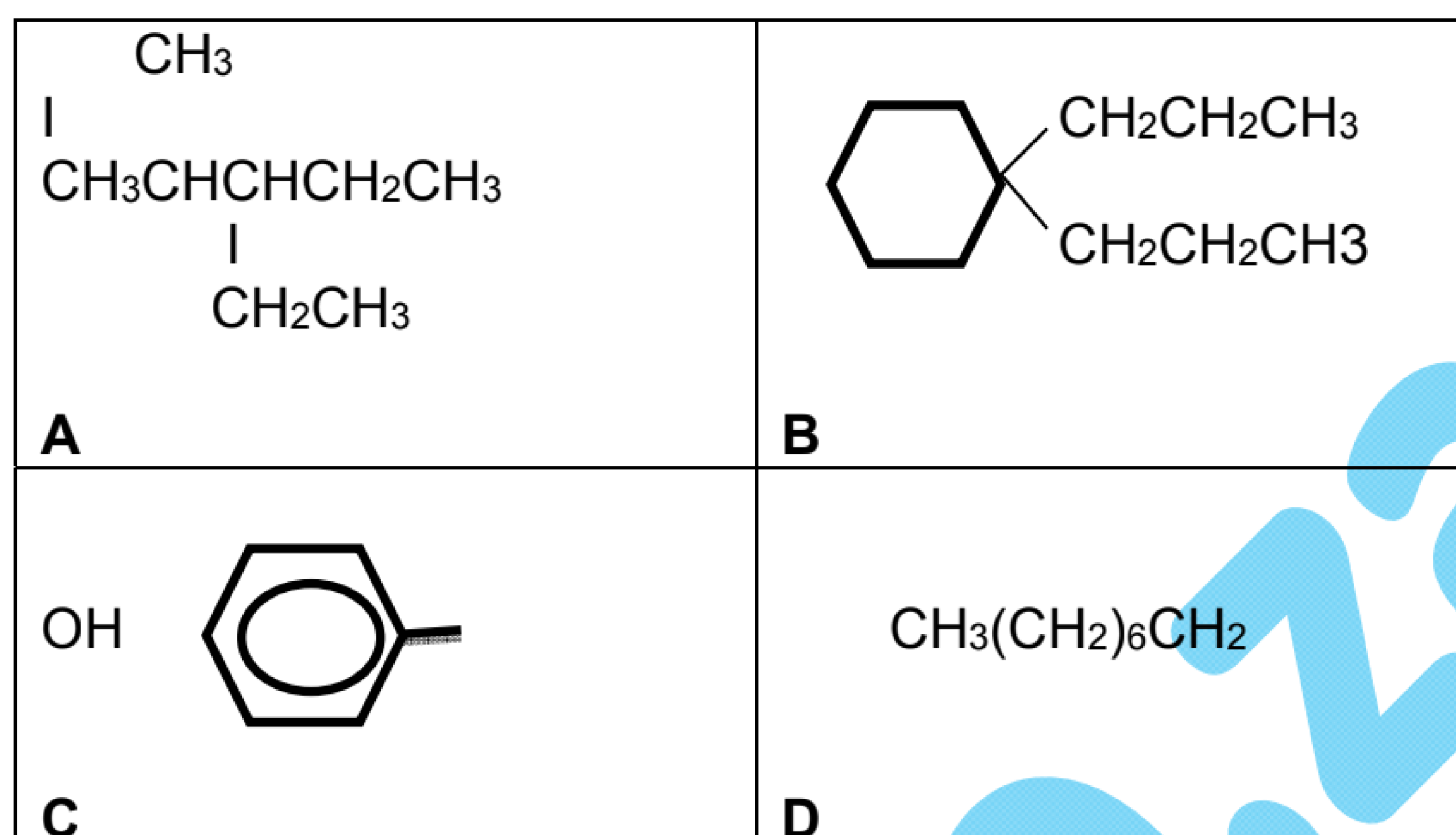
DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
CHEMISTRY N5
TIME: 3 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
 2. Read all the questions carefully.
 3. Number the answers according to the numbering system used in this question paper.
 4. Use only a black or blue pen.
 5. Write neatly and legibly.
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QUESTION 1

1.1 Consider the following compounds:



- 1.1.1 Write the IUPAC names of compounds B and C. (4)
- 1.1.2 Which compounds are structural isomers? (2)
- 1.1.3 Which compound is classified as an aromatic compound? (1)
- 1.1.4 Indicate the type of hybridisation that occurs at C4 in compound B. (1)
- 1.1.5 Write the IUPAC name of compound A. (2)
- 1.1.6 Write a balance reaction for combustion of compound D. (4)

1.2 Define the following terms and provide an example in each case:

- 1.2.1 Radicals (1)
- 1.2.2 Nucleophile (1)

1.3 Propane is reacted with hydrogen bromide to form an alkyl halide. Write a balanced equation for the reaction. (4)

1.4 The following polyene is used as a monomer to produce car tyres known as SBR.



- 1.4.1 Write the IUPAC name of the compound. (2)
- 1.4.2 Classify the compound as cumulative, conjugated or isolated polyene. Justify your answer. (2)
- 1.4.3 Is the compound soluble in water? (1)

[25]