

14.2 Further Aspects of Bonding

Question Paper

Course	DPIB Chemistry
Section	14. Chemical Bonding & Structure (HL only)
Topic	14.2 Further Aspects of Bonding
Difficulty	Easy

Time allowed: 10
Score: /5
Percentage: /100

Question 1

Which compound contains delocalised electrons?

- A. Cyclohexane, C_6H_{12}
- B. Cyclohexene, C_6H_{10}
- C. Benzene, C_6H_6
- D. Cyclohexanol, $C_6H_{11}OH$

[1 mark]

Question 2

Which structure does **not** show resonance?

- A. Carbonate ion, CO_3^{2-}
- B. Hydroxide ion, OH^-
- C. Ethanoate ion, CH_3COO^-
- D. Nitrate ion, NO_3^-

[1 mark]

Question 3

Which of the following **cannot** catalyse the decomposition of ozone, O_3 , to oxygen?

- A. Cl
- B. NO
- C. O
- D. CCl_4

[1 mark]

Question 4

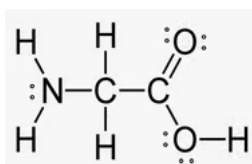
Which is the correct description of how an sp^2 orbital is formed?

- A. One s-orbital mixes with three p-orbitals
- B. Two s-orbitals mixes with two p-orbitals
- C. One s-orbital mixes with two p-orbitals
- D. One s-orbital mixes with one p-orbital

[1 mark]

Question 5

The structure of glycine is shown below:



What is the correct number of sp^2 and sp^3 hybridized atoms in glycine?

	Number of sp^2 hybridised atoms	Number of sp^3 hybridised atoms
A.	8	2
B.	2	8
C.	3	2
D.	2	3

[1 mark]