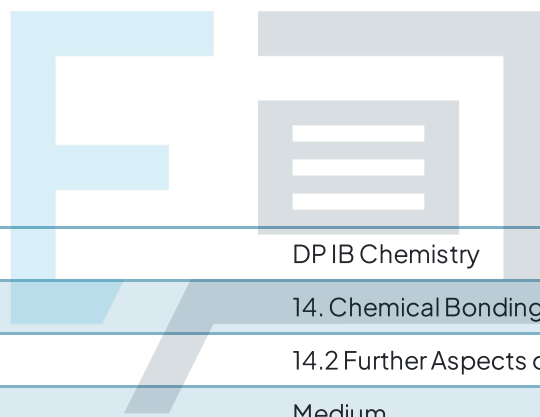




14.2 Further Aspects of Bonding

Question Paper



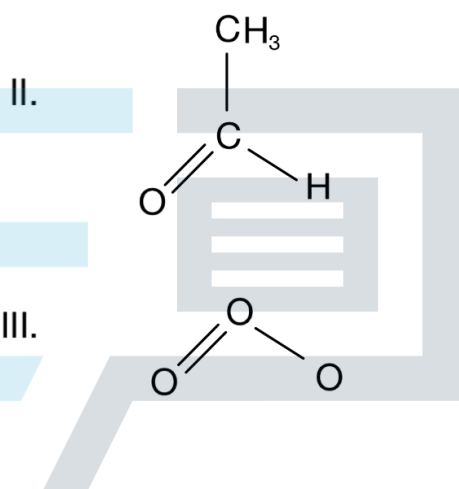
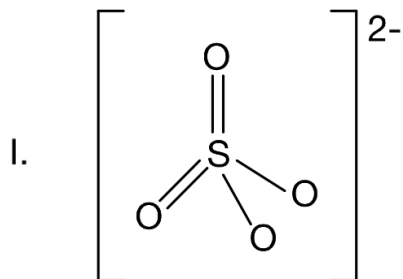
Course	DP IB Chemistry
Section	14. Chemical Bonding & Structure (HL only)
Topic	14.2 Further Aspects of Bonding
Difficulty	Medium

Exam Papers Practice

To be used by all students preparing for DP IB Chemistry HL
Students of other boards may also find this useful

Question 1

Which species contain delocalised electrons?



- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II and III

[1 mark]

Question 2

Which combination describes the PH_4^+ ion?

	Molecular geometry	Central atom hybridisation
A	Tetrahedral	sp^3
B	Square planar	sp^3
C	Tetrahedral	sp^2
D	Square planar	sp^2

[1 mark]

Question 3

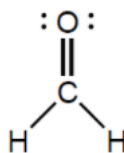
Which statement is correct?

- A. O_3 bond dissociation occurs at a longer wavelength of light than O_2 bond dissociation.
- B. O_3 bond dissociation occurs at a higher energy than O_2 bond dissociation.
- C. O_3 bond lengths are shorter than O_2 bond lengths.
- D. O_3 bond dissociation occurs at a higher frequency of light than O_2 bond dissociation.

[1 mark]

Question 4

What is the hybridisation of carbon and oxygen in methanol?



	Hybridisation of C	Hybridisation of O
A	sp^2	sp^2
B	sp^2	sp
C	sp	sp^2
D	sp^3	sp^3

[1 mark]

Question 5

Which species have delocalised π electrons?

- I. CH_3COCH_3
- II. NO_2^-
- III. CO_3^{2-}

- A. I and II only
- B. I and III only
- C. II and III only
- D. I, II and III

[1 mark]



Exam Papers Practice