

14.2 Further Aspects of Bonding

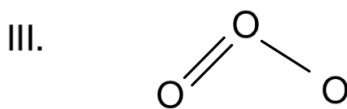
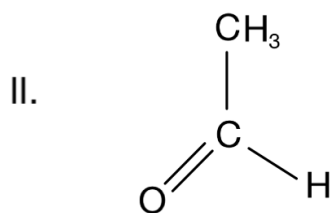
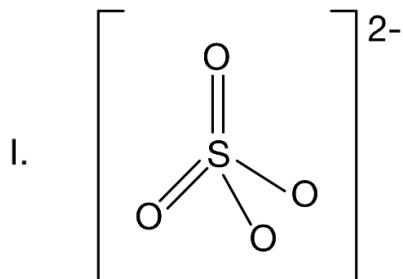
Question Paper

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

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

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

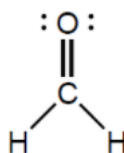
Which statement is correct?

- 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]

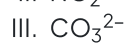
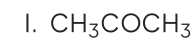
Question 4

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 5Which species have delocalised π electrons?

A. I and II only

B. I and III only

C. II and III only

D. I, II and III

[1 mark]