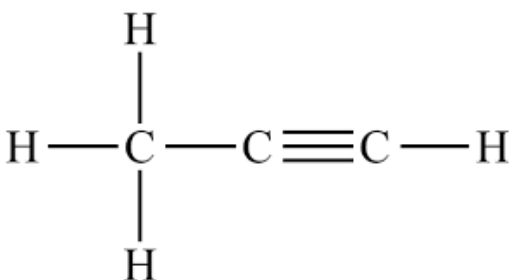


14.1A Sigma & Pi Bonds

Past Exam Questions (Paper 1)

1. [1 mark]

How many σ and π bonds are present in a molecule of propyne, $\text{CH}_3\text{C}\equiv\text{CH}$?



	σ	π
A.	5	3
B.	6	2
C.	7	1
D.	8	0

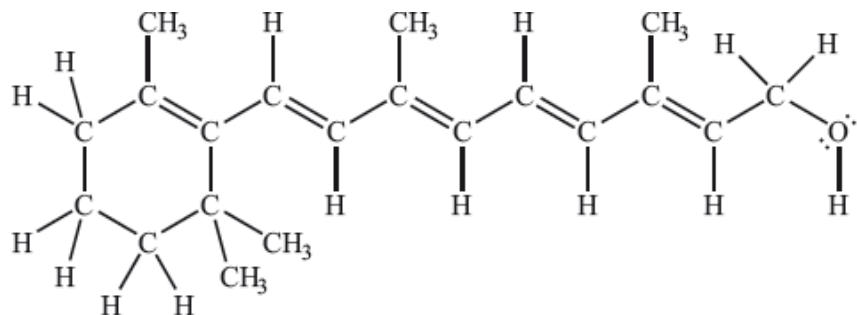
2. [1 mark]

How many sigma and pi bonds are there in propyne, $\text{CH}_3\text{C}\equiv\text{CH}$??

- A. 2 sigma and 2 pi
- B. 7 sigma and 1 pi
- C. 6 sigma and 2 pi
- D. 5 sigma and 3 pi

3. [1 mark]

Retinol (vitamin A) contains a total of **5** double bonds and **46** single bonds.



How many sigma and pi bonds are there?

4. [1 mark]

How many sigma (σ) and pi (π) bonds are there in $\text{CH}_3\text{CH}_2\text{C}\equiv\text{CCH}_2\text{C}=\text{OOH}$?

A. 13σ and 5π

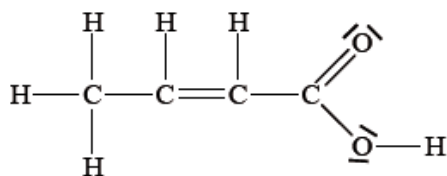
B. 15σ and 2π

C. 15σ and 3π

D. 15σ only

5. [1 mark]

How many sigma (σ) and pi (π) bonds are there in the following molecule?



	σ bonds	π bonds
A.	9	2
B.	9	4
C.	11	2
D.	11	4

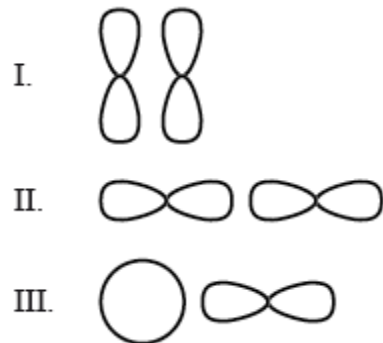
6. [1 mark]

What is the correct number of sigma (σ) and pi (π) bonds in prop-2-enenitrile, $\text{CH}_2=\text{CHC}\equiv\text{N}$?

	σ bonds	π bonds
A.	7	2
B.	4	5
C.	6	3
D.	3	3

7. [1 mark]

The diagrams below show s and p orbitals in different positions. Which combinations can form a σ -bond?



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

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