

PASS ALL CONDITIONS — NOT JUST $(4n+2)$

Concept 21 — 9.5.3 Aromaticity

STEP 1:
CYCLICITY
(CLOSED LOOP)

STEP 2:
PLANARITY
(2D STRUCTURE)

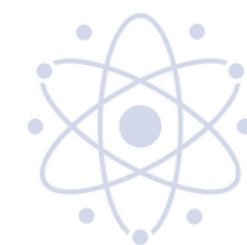
STEP 3:
FULL CONJUGATION
(p-ORBITAL OVERLAP)

STEP 4:
HÜCKEL'S RULE
($4n+2$ π ELECTRONS)



You've Learned the Theory. Let's Test Them Now.

$$E=mc^2$$



Turn theory into marks with **unlimited MCQs, smart analysis, and focused revision.**

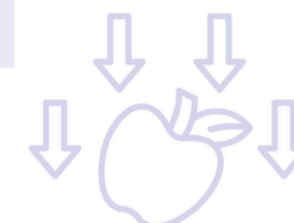
Practice Now



At prep.topall.app

Key Highlights

- » Free Study Material, Videos & Infographics
- » Push Your Limits with Level-Based Challenges
- » Climb the Leaderboard Among Fellow Aspirants
- » Practice Unlimited MCQs for NEET & JEE
- » Get Clear Explanations, Not Just Marks
- » Track Your Performance Smarter

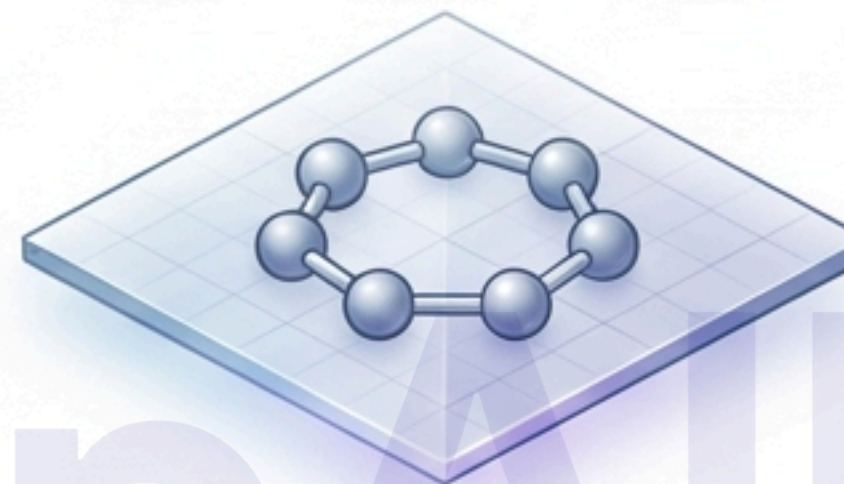


The Aromaticity Checklist

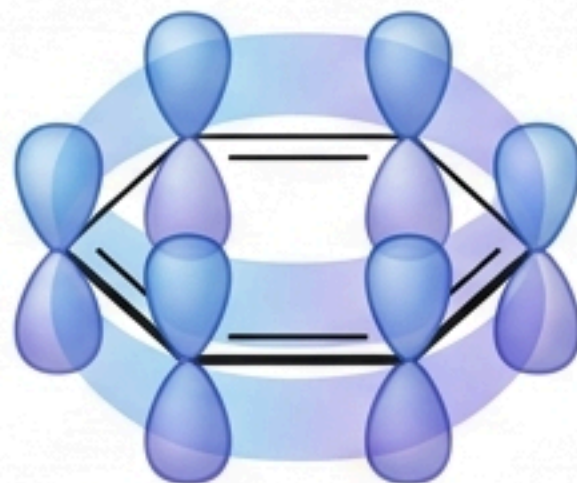
✓ Cyclic



✓ Planar



✓ Continuously conjugated



✓ Correct π -electron count

$$(4n+2)\pi$$

The Hückel Rule Pattern

$$(4n+2)\pi$$

$$n = 0, 1, 2, \dots$$

n=0

2

n=1

6

n=2

10

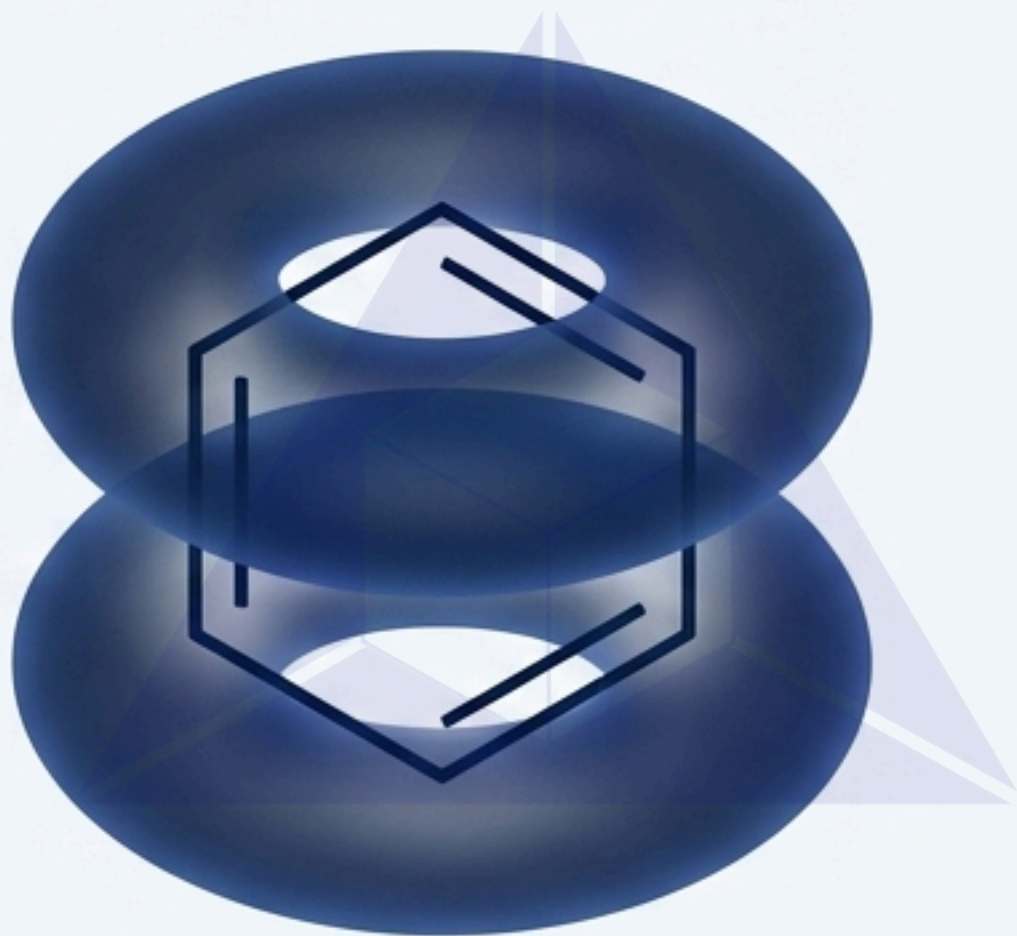
n=3

14...

Total π electrons required

Diagnostic Application: The Benzene Test

The Molecule



The Scanner

Ring?

Yes ✓

Planar?

Yes ✓

Conjugated?

Yes ✓

Math: $4(1) + 2 = 6$
(6 π electrons)

Yes ✓

Therefore aromatic.



JEE Trap Alert — Incomplete Logic

Trap: 6 π electrons = Aromatic

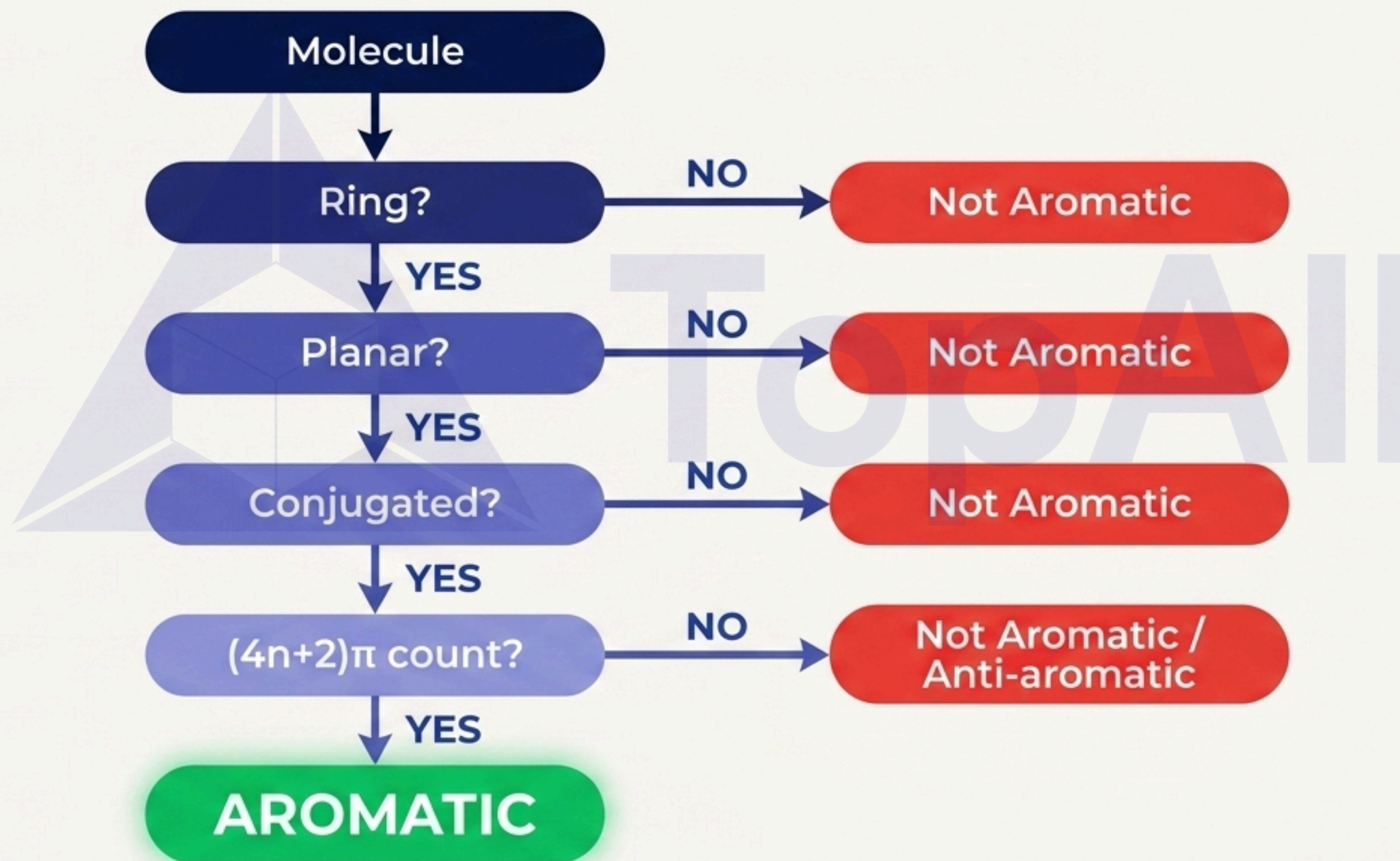
Error: Assuming aromaticity without checking geometry or conjugation.



It has 6 π electrons, but fails the “Cyclic” gate.

Therefore, NOT AROMATIC.

The Complete Aromaticity Decision Flow





You've Learned the Theory.

Now Let's Test It.

Reading notes gets you knowledge.

Practicing MCQs gets you marks.

That's exactly what TopAll Pro is built for.

Try TopAll Pro Now

What TopAll Pro Does Differently

-  **Stuck? Snap it. Solve it. — Doubts AI**
Photo → step-by-step solution in seconds, 24/7
-  **Your AI Coach finds your blind spots**
Concept-level weakness detection — not just chapter-level
-  **4.5 Lakh+ questions. Never run out.**
13× more content than any other prep app in India
-  **Build your own test in 60 seconds**
Pick a chapter, set difficulty — AI does the rest instantly.
-  **AI Recommendation that helps you improve**
AI Recommendation Analysis your Tests and tell you where you need to improve.



Practice the moment you finish studying
Jump in while the concept is still fresh in your head

4.5L+
MCQs

1.5L+
Students

AI Powered
In-Depth Analysis