

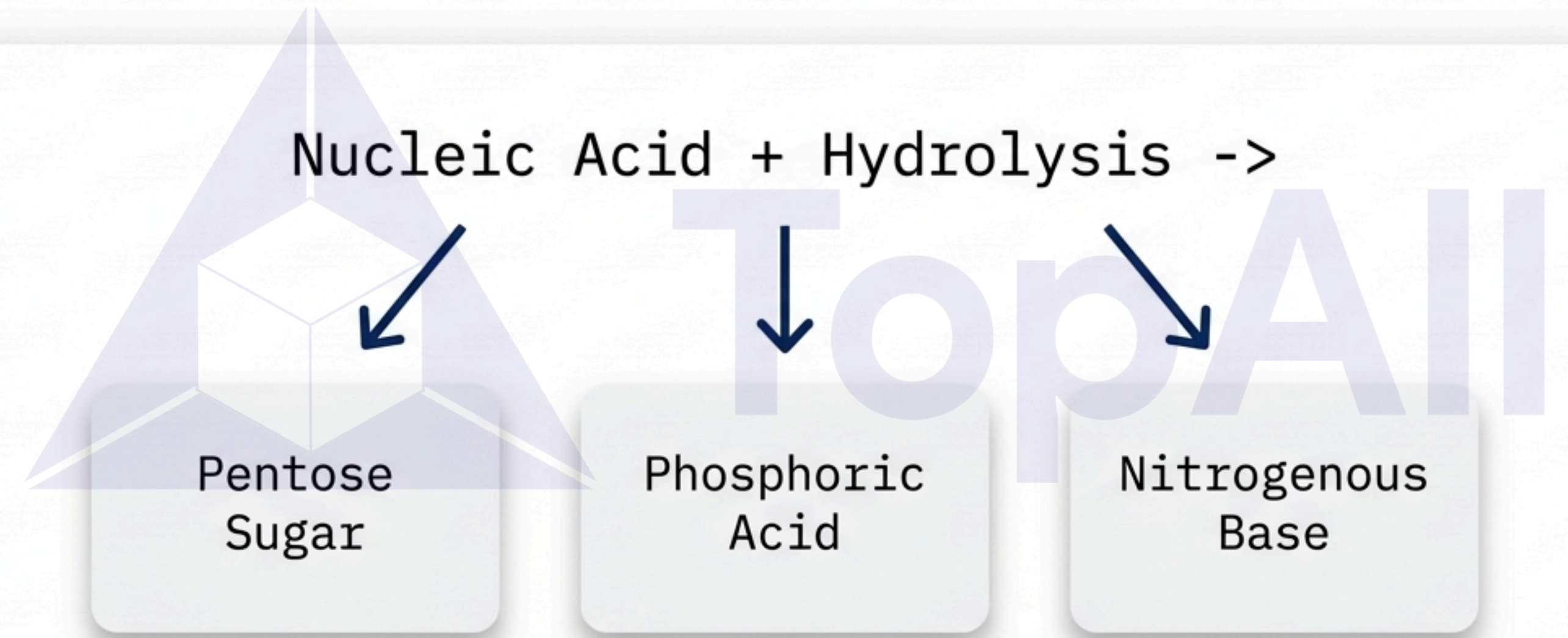
UNIT 10 • BIOMOLECULES

Chemical Composition of Nucleic Acids

Deconstructing the fundamental building blocks of DNA and RNA.

What makes up a Nucleic Acid?

Nucleic Acid + Hydrolysis ->



Pentose
Sugar

Phosphoric
Acid

Nitrogenous
Base



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



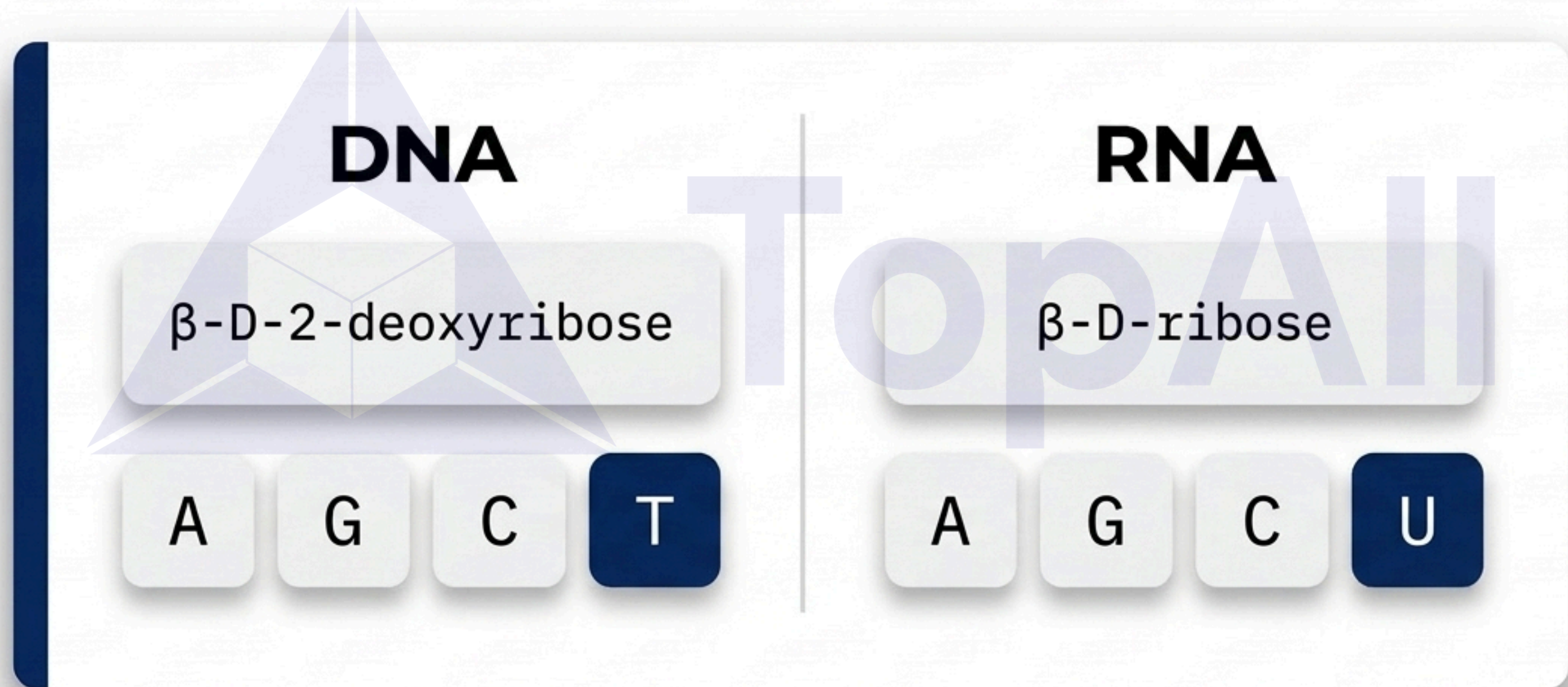
At prep.topall.app

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



DNA vs. RNA: The Chemical Differences



Watch for this!

Examiners often try to trick you by suggesting DNA and RNA have entirely different structures.

Remember: they differ in **exactly two** components.

1. The Sugar (Deoxyribose vs Ribose)
2. One Base (Thymine vs Uracil)

The Common Ground

Despite their differences, the core structural framework of DNA and RNA shares three identical nitrogenous bases.

Adenine (A)

Guanine (G)

Cytosine (C)

Key Takeaways

- Complete hydrolysis of any nucleic acid always yields three parts: a pentose sugar, phosphoric acid, and nitrogenous bases.
- DNA and RNA share three bases (A, G, C) but differ in their sugar (2-deoxyribose vs ribose) and their fourth base (T vs U).



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