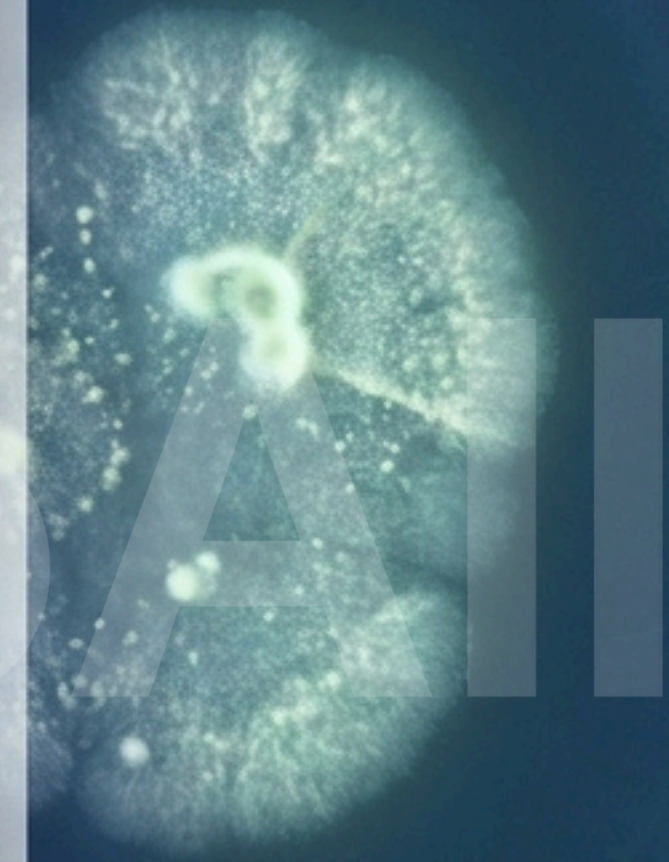


Class 12 Biology • Section 8.2.2 • NEET High-Yield Revision

Antibiotics: Microbes That Fight Disease



Anti (Greek: Against)



Bio (Greek: Life)



Against life

(for disease-causing organisms)



Pro-life

(for human beings)

The NCERT Definition

Chemical substances, which are produced by some microbes and can **kill or retard** the growth of other (disease-causing) microbes.



A Fortunate Accident

The first antibiotic, Penicillin, was not engineered; it was a chance discovery.

- Alexander Fleming was working in his lab when he noticed a mould growing in one of his unwashed culture plates.
- He observed that the bacteria he was culturing could not grow anywhere near this invading mould.



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



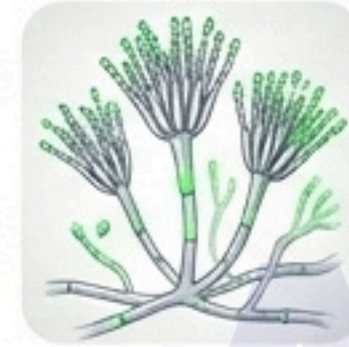
Microbial Battleground



The Antagonist (Bacteria)

Staphylococci

Failed to grow around
the mould.



The Protagonist (Mould)

Penicillium notatum

Produced a chemical that actively
inhibited bacterial growth.
Fleming named this chemical
Penicillin, after the mould.

Step 1: The Discovery

 Alexander Fleming

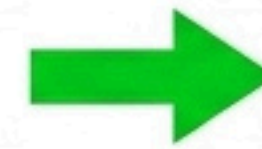
Made the initial observation and identified the chemical.



Step 2: Establishing Potential

 Ernest Chain & Howard Florey

Established Penicillin's full potential as a highly effective, deployable antibiotic.



Step 3: Global Application & Reward

Extensively used to treat wounded American soldiers during World War II.

Fleming, Chain, and Florey shared the **Nobel Prize in 1945**.

Whooping Cough

Kali Khansi



Diphtheria

Gal Ghotu



Leprosy

Kusht Rog



Plague

Deadly bacterial infection



Antibiotics greatly improved the capacity to treat these deadly diseases, which previously killed millions across the globe.

NEET HIGH-YIELD SUMMARY

FIRST ANTIBIOTIC DISCOVERED:

Penicillin

SOURCE ORGANISM (MOULD):

Penicillium notatum

TARGET ORGANISM (BACTERIA):

Staphylococci

FULL POTENTIAL ESTABLISHED BY:

Chain & Florey

NOBEL PRIZE (1945) WINNERS:

Fleming, Chain, Florey

KEY HINDI TERMS:

Kali Khansi (Whooping Cough),
Gal Ghotu (Diphtheria),
Kusht Rog (Leprosy)



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