

p-Block Elements (Groups 15-18)

NEET previous year questions · Chemistry

4 questions from the official papers: NEET 2026 (2), Re-NEET 2026 (1), NEET 2020 (1). Each is followed by its answer and a worked solution written by BrainIt. Generated on 23 October 2026.



BrainIt

The NEET practice app that learns how you practise and tells you what to do next.

PYQs · Mock tests · Revision · Interactive 3D concepts · Analytics

Get it on
Google Play

Download on the
App Store



brainit.pro/app

1. NEET 2026 · Q62

Identify the incorrect statement from the following:

- (1) Nitrogen can form $p\pi-p\pi$ multiple bonds with itself.
- (2) $P(C_2H_5)_3$ and $As(C_6H_5)_3$ form $d\pi-d\pi$ bond with transition metals.
- (3) Phosphorus, arsenic and antimony show catenation property.
- (4) Nitrogen can form $d\pi-p\pi$ bond with oxygen.

Answer (4)

Sol. Both nitrogen and oxygen are period-2 elements lacking accessible d-orbitals, so nitrogen cannot form a $d\pi-p\pi$ bond with oxygen, making statement D incorrect. Nitrogen does form $p\pi-p\pi$ multiple bonds (as in N_2), the heavier elements P and As have vacant d-orbitals allowing $d\pi-d\pi$ overlap with transition metals, and P, As, Sb show catenation, so those statements are correct.

2. NEET 2026 · Q76

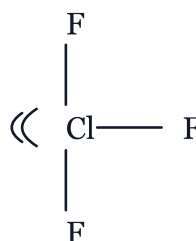
Identify the correct statement about ClF_3 from the following options:

- (1) It has T-shaped geometry with two lone pairs on Cl atom.
- (2) It has T-shaped geometry with three lone pairs on Cl atom.
- (3) It has a trigonal pyramidal geometry with two lone pairs on Cl atom.
- (4) It has a planar trigonal geometry with two lone pairs on Cl atom.

Answer (1)

Sol. In ClF_3 the central Cl has five electron domains (3 bond pairs + 2 lone pairs) and sp^3d hybridisation, giving a trigonal bipyramidal electron arrangement. The two lone pairs occupy equatorial positions,

leaving a T-shaped molecular geometry. Hence ClF_3 is T-shaped with two lone pairs on the Cl atom.



Why the other options are wrong:

- (2) ClF_3 has two, not three, lone pairs on chlorine.
- (3) Trigonal pyramidal (like NH_3) has 3 bond pairs + 1 lone pair, not the case here.
- (4) Planar trigonal (like BF_3) has no lone pairs on the central atom.

3. Re-NEET 2026 · Q65

Given below are two statements.

Statement I: Heating $NaCl$ with concentrated H_2SO_4 and MnO_2 results in oxidation of Mn.

Statement II: Heating NaI with concentrated H_2SO_4 and MnO_2 results in reduction of Mn.

In light of the above statements, choose the most appropriate answer from the options given below.

- (1) Both Statement-I and Statement-II are correct
- (2) Both Statement-I and Statement-II are incorrect
- (3) Statement-I is correct but Statement-II is incorrect
- (4) Statement-I is incorrect but Statement-II is correct

Answer (4)

Sol. In both reactions MnO_2 acts as the OXIDISING agent on the halide, so manganese itself goes from +4 down to +2 - it is REDUCED, not oxidised. Statement-I therefore states the opposite of what happens and is wrong, while Statement-II describes

the same reduction correctly for the iodide. This is the classic laboratory route to chlorine, $\text{MnO}_2 + 2\text{NaCl} + 2\text{H}_2\text{SO}_4 \rightarrow \text{MnSO}_4 + \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O} + \text{Cl}_2$. NCERT Class 12, The p-Block Elements (Group 17, preparation of chlorine).

4. NEET 2020 · Q108

Which of the following oxoacid of sulphur has - O - O - linkage?

- (1) H_2SO_4 , sulphuric acid
- (2) $\text{H}_2\text{S}_2\text{O}_8$, peroxodisulphuric acid
- (3) $\text{H}_2\text{S}_2\text{O}_7$, pyrosulphuric acid
- (4) H_2SO_3 , sulphurous acid

Answer (2)

Sol. Peroxodisulphuric acid ($\text{H}_2\text{S}_2\text{O}_8$) contains the peroxide linkage (-O-O-), which is not present in the other oxoacids listed. Chapter: p-Block Elements (Groups 15-18).

Questions: official NEET papers set by NTA. Solutions: BrainIt. BrainIt is independent and not affiliated with NTA. Online, with every chapter: brainit.pro/neet/chemistry/p-block-elements-groups-15-18/pyq/

AFTER THIS PAPER

Turn this paper into a plan.

BrainIt is a NEET practice app. It learns how you practise and tells you what to do next.

- **PYQs**
Previous-year questions, each with an explanation.
- **Mock tests**
Full and mini mocks on the CBT exam screen.
- **Revision**
Your mistakes come back for review, with flashcards.
- **Interactive concepts**
Learn by exploring 3D models, like the human body and the heart.
- **Analytics**
See your accuracy, speed and where you lose marks.
- **A daily plan**
It picks what to study next, every day.

Get it on

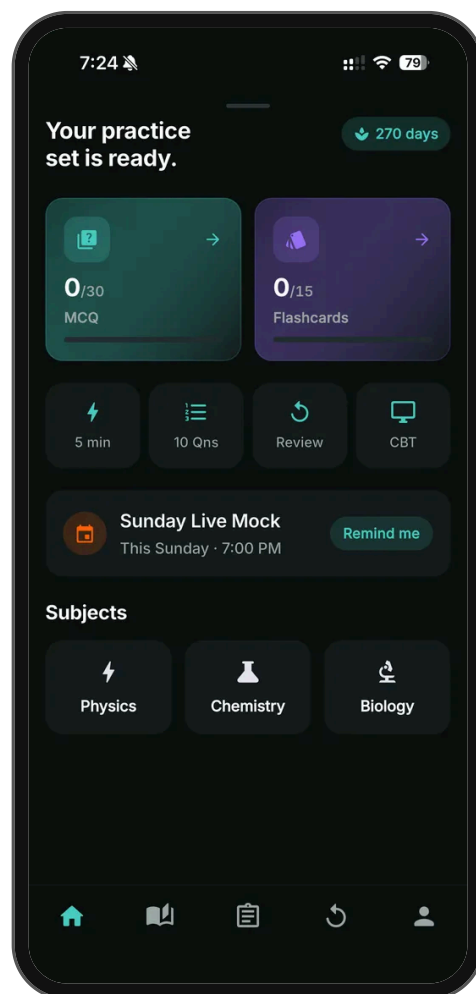
Google Play

Download on the

App Store



Scan with your phone camera,
or type **brainit.pro/app**



Take a free CBT mock

Real NEET questions on the exam screen, timed and marked for you.
No login.