

PYQSide

NEET REDOX REACTIONS — OXIDATION, REDUCTION AND OXIDATION NUMBER (CONCEPT AND CALCULATION) — PYQS

Max. Marks: 44

Questions: 11

Section A (MCQ)

Q.1 The correct decreasing order of oxidation state of the underlined atom in each molecule is

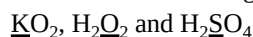
[RE-NEET (UG) 2026]

- (1) $\underline{\text{P}}_4\text{O}_6 > \underline{\text{Cl}}_2\text{O}_7 > \underline{\text{Al}}\text{H}_3$
 (2) $\underline{\text{P}}_4\text{O}_{10} > \underline{\text{S}}\text{O}_3 > \text{H}_2\underline{\text{O}}$
 (3) $\underline{\text{N}}_2\text{O}_5 > \underline{\text{Al}}_2\text{O}_3 > \text{H}_2\underline{\text{S}}$
 (4) $\underline{\text{Pb}}\text{O}_2 > \underline{\text{N}}_2\text{O}_3 > \underline{\text{S}}\text{O}_3$

Scan or tap for the full solution



Q.2 Consider the following compounds :



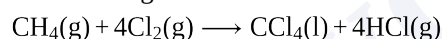
The oxidation state of the underlined elements in them are, respectively, [NEET (UG) 2025]

- (1) +1, -2, and +4 (2) +4, -4, and +6
 (3) +1, -1, and +6 (4) +2, -2, and +6

Scan or tap for the full solution



Q.3 What is the change in oxidation number of carbon in the following reaction?



[NEET (UG) 2020]

- (1) 0 to +4 (2) -4 to +4 (3) 0 to -4 (4) +4 to +4

Scan or tap for the full solution



Q.4 The correct order of N-compounds in its decreasing order of oxidation states is [NEET 2018]

- (1) $\text{HNO}_3, \text{NO}, \text{N}_2, \text{NH}_4\text{Cl}$
 (2) $\text{HNO}_3, \text{NO}, \text{NH}_4\text{Cl}, \text{N}_2$
 (3) $\text{HNO}_3, \text{NH}_4\text{Cl}, \text{NO}, \text{N}_2$
 (4) $\text{NH}_4\text{Cl}, \text{N}_2, \text{NO}, \text{HNO}_3$

Scan or tap for the full solution



Q.5 Which of the following processes does not involve oxidation of iron? [AIPMT 2015 (Cancelled)]

- (1) Formation of $\text{Fe}(\text{CO})_5$ from Fe.
 (2) Liberation of H_2 from steam by iron at high temperature.
 (3) Rusting of iron sheets.
 (4) Decolourisation of blue CuSO_4 solution by iron.

Scan or tap for the full solution



Q.6 In acidic medium, H_2O_2 changes $\text{Cr}_2\text{O}_7^{2-}$ to CrO_5 which has two ($-\text{O}-\text{O}-$) bonds. Oxidation state of Cr in CrO_5 is [AIPMT 2014]

- (1) +5 (2) +3 (3) +6 (4) -10

Scan or tap for the full solution



Q.7 A mixture of potassium chlorate, oxalic acid and sulphuric acid is heated. During the reaction which element undergoes maximum change in the oxidation number? [AIPMT 2012 (Prelims)]

- (1) S (2) H (3) Cl (4) C

Scan or tap for the full solution



Q.8 In which of the following compounds, nitrogen exhibits highest oxidation state? [AIPMT 2012 (Prelims)]

- (1) N_2H_4 (2) NH_3 (3) N_3H (4) NH_2OH

Scan or tap for the full solution



Q.9 Oxidation numbers of P in PO_4^{3-} , of S in SO_4^{2-} and that of Cr in $\text{Cr}_2\text{O}_7^{2-}$ are respectively [AIPMT 2009]

- (1) +3, +6 and +5 (2) +5, +3 and +6
 (3) -3, +6 and +6 (4) +5, +6 and +6

Scan or tap for the full solution



Q.10 The oxidation states of sulphur in the anions SO_3^{2-} , $\text{S}_2\text{O}_4^{2-}$ and $\text{S}_2\text{O}_6^{2-}$ follow the order [AIPMT 2003]

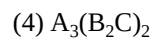
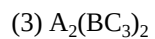
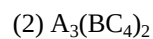
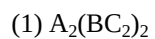
- (1) $\text{S}_2\text{O}_4^{2-} < \text{SO}_3^{2-} < \text{S}_2\text{O}_6^{2-}$
 (2) $\text{SO}_3^{2-} < \text{S}_2\text{O}_4^{2-} < \text{S}_2\text{O}_6^{2-}$
 (3) $\text{S}_2\text{O}_4^{2-} < \text{S}_2\text{O}_6^{2-} < \text{SO}_3^{2-}$
 (4) $\text{S}_2\text{O}_6^{2-} < \text{S}_2\text{O}_4^{2-} < \text{SO}_3^{2-}$

Scan or tap for the full solution



Q.11 Oxidation numbers of A, B, C are +2, +5 and -2 respectively. Possible formula of compound is

[AIPMT 2000]



Scan or tap for the
full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	3	3	2	1	1	3	3	3	4	1	2