

NEET D- AND F-BLOCK ELEMENTS — PREPARATION AND PROPERTIES OF KMnO_4 — PYQS

Max. Marks: 28
Questions: 7

Section A (MCQ) — 7 questions

Q.1 The green paramagnetic species formed by heating KMnO_4 at 513 K is [RE-NEET (UG) 2026]

- (1) KO_2 (2) K_2MnO_4 (3) Mn_3O_4 (4) MnO

Scan or tap for the full solution



Q.2 The oxidation states not shown by Mn in given reaction are :



- A. +6 B. +2
C. +4 D. +7
E. +3

Choose the most appropriate answer from the options given below :

[RE-NEET (UG) 2024]

- (1) D and E only (2) B and D only
(3) A and B only (4) B and E only

Scan or tap for the full solution



Q.3 In the neutral or faintly alkaline medium, KMnO_4 oxidises iodide into iodate. The change in oxidation state of manganese in this reaction is from

[NEET (UG) 2022]

- (1) +7 to +4 (2) +6 to +4 (3) +7 to +3 (4) +6 to +5

Scan or tap for the full solution



Q.4 The manganate and permanganate ions are tetrahedral due to :

[NEET (UG) 2019]

- (1) The π -bonding involves overlap of p-orbitals of oxygen with p-orbitals of manganese
(2) The π -bonding involves overlap of d-orbitals of oxygen with d-orbitals of manganese
(3) The π -bonding involves overlap of p-orbitals of oxygen with d-orbitals of manganese
(4) There is no π -bonding

Scan or tap for the full solution



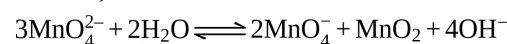
Q.5 The reaction of aqueous KMnO_4 with H_2O_2 in acidic conditions gives [AIPMT 2014]

- (1) Mn^{4+} and O_2 (2) Mn^{2+} and O_2
(3) Mn^{2+} and O_3 (4) Mn^{4+} and MnO_2

Scan or tap for the full solution



Q.6 KMnO_4 can be prepared from K_2MnO_4 as per the reaction,



The reaction can go to completion by removing OH^- ions by adding [NEET 2013]

- (1) CO_2 (2) SO_2 (3) HCl (4) KOH

Scan or tap for the full solution



Q.7 The number of moles of KMnO_4 reduced by one mole of KI in alkaline medium is [AIPMT 2005]

- (1) one (2) two (3) five (4) one fifth

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7				
Ans.	2	4	1	3	2	1	2				