

PYQSide

NEET D- AND F-BLOCK ELEMENTS — FORMATION OF COMPLEX COMPOUNDS, CATALYTIC PROPERTIES, INTERSTITIAL COMPOUNDS AND ALLOY FORMATION — PYQS

Max. Marks: 28

Questions: 7

Section A (MCQ)

Q.1 Match **List I** with **List II** : [NEET (UG) 2026]

List-I (Transition metal/compound/complex)		List-II (Catalytic Role)	
A.	V_2O_5	I.	Preparation of ammonia from N_2/H_2 mixture
B.	Fe	II.	Polymerisation of alkynes
C.	$PdCl_2$	III.	Preparation of H_2SO_4 from SO_2
D.	Ni complex	IV.	Oxidation of ethyne to ethanal

- (1) A-III, B-IV, C-I, D-II (2) A-III, B-I, C-IV, D-II
(3) A-II, B-I, C-IV, D-III (4) A-IV, B-I, C-III, D-II

Scan or tap for the full solution



Q.2 Match **List - I** with **List - II**.

List - I		List - II	
A.	Haber process	I.	Fe catalyst
B.	Wacker oxidation	II.	$PdCl_2$
C.	Wilkinson catalyst	III.	$[(PPh_3)_3RhCl]$
D.	Ziegler catalyst	IV.	$TiCl_4$ with $Al(CH_3)_3$

Choose the correct answer from the options given below :

[NEET (UG) 2025]

- (1) A-I, B-II, C-III, D-IV (2) A-I, B-IV, C-III, D-II
(3) A-I, B-II, C-IV, D-III (4) A-II, B-III, C-I, D-IV

Scan or tap for the full solution



Q.3 Which of the following statements about the interstitial compounds is incorrect? [NEET 2013]

- (1) They are much harder than the pure metal.
(2) They have higher melting points than the pure metal.
(3) They retain metallic conductivity.
(4) They are chemically reactive.

Scan or tap for the full solution



Q.4 The catalytic activity of transition metals and their compounds is ascribed mainly to

[AIPMT 2012 (Mains)]

- (1) their magnetic behaviour
(2) their unfilled d-orbitals
(3) their ability to adopt variable oxidation states
(4) their chemical reactivity

Scan or tap for the full solution



Q.5 Identify the alloy containing a non-metal as a constituent in it.

[AIPMT 2012 (Prelims)]

- (1) Invar (2) Steel
(3) Bell metal (4) Bronze

Scan or tap for the full solution



Q.6 Copper sulphate dissolves in excess of KCN to give

[AIPMT 2006]

- (1) $Cu(CN)_2$ (2) $CuCN$
(3) $[Cu(CN)_4]^{3-}$ (4) $[Cu(CN)_4]^{2-}$

Scan or tap for the full solution



Q.7 Which one of the following characteristics of the transition metals is associated with their catalytic activity?

[AIPMT 2003]

- (1) High enthalpy of atomization
(2) Paramagnetic behaviour
(3) Colour of hydrated ions
(4) Variable oxidation states

Scan or tap for the full solution



ANSWER KEY

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