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NEET P-BLOCK ELEMENTS (GROUP 15–18) — GROUP 18 ELEMENTS (NOBLE GAS FAMILY) — PYQS

Max. Marks: 24 **Questions:** 6

Section A (MCQ) — 6 questions

Q.1 Given below are two statements : one is labelled as Assertion A and the other is labelled as Reason R.
Assertion (A): Helium is used to dilute oxygen in diving apparatus.
Reason (R): Helium has high solubility in O_2.

In the light of the above statements, choose the correct answer from the options given below: [NEET (UG) 2023]

(1) Both A and R are true but R is NOT the correct explanation of A.
(2) A is true but R is false.
(3) A is false but R is true.
(4) Both A and R are true and R is the correct explanation of A.

Scan or tap for the full solution

Q.2 Noble gases are named because of their inertness towards reactivity. Identify an incorrect statement about them. [NEET (UG) 2021]

(1) Noble gases have large positive values of electron gain enthalpy
(2) Noble gases are sparingly soluble in water
(3) Noble gases have very high melting and boiling points
(4) Noble gases have weak dispersion forces

Scan or tap for the full solution

Q.3 Match the Xenon compounds in **Column-I** with its structure in **Column-II** and assign the correct code : [NEET (UG) 2019]

Column-I		Column-II	
a.	XeF_4	i.	pyramidal
b.	XeF_6	ii.	square planar
c.	$XeOF_4$	iii.	distorted octahedral
d.	XeO_3	iv.	square pyramidal

(1) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)
(2) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)
(3) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
(4) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)

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Q.4 Match the compounds given in **column I** with the hybridisation and shape given in **column II** and mark the correct option [NEET 2016 (Phase 1)]

Column I		Column II	
a.	XeF_6	i.	distorted octahedral
b.	XeO_3	ii.	square planar
c.	$XeOF_4$	iii.	pyramidal
d.	XeF_4	iv.	square pyramidal

(1) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)
(2) (a)-(iv), (b)-(i), (c)-(ii), (d)-(iii)
(3) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)
(4) (a)-(i), (b)-(ii), (c)-(iv), (d)-(iii)

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Q.5 Identify the incorrect statement, regarding the molecule XeO_4: [NEET 2013 (Karnataka)]

(1) XeO_4 molecule is square planar.
(2) There are four $p\pi - d\pi$ bonds.
(3) There are four $sp^3 - p, \sigma$ bonds.
(4) XeO_4 molecule is tetrahedral.

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Q.6 Which compound has planar structure? [AIPMT 2000]

(1) XeF_4 (2) $XeOF_2$ (3) XeO_2F_2 (4) XeO_4

Scan or tap for the full solution

ANSWER KEY

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