

PYQSide

NEET CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES — IONISATION ENTHALPY — PYQS

Max. Marks: 40

Questions: 10

Section A (MCQ)

Q.1 Given below are two statements: One is labelled as **Assertion A** and the other is labelled as **Reason R**.

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

Assertion (A): The first ionization enthalpy of O is lower than that of N and F.

Reason (R): The loss of an electron from O leads to stable half-filled p orbital [RE-NEET (UG) 2026]

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

Scan or tap for the full solution



- Q.2** Which of the following statements are true?
- A. Unlike Ga that has a very high melting point, Cs has a very low melting point.
 - B. On Pauling scale, the electronegativity values of N and Cl are not the same.
 - C. Ar, K^+ , Cl^- , Ca^{2+} , and S^{2-} are all isoelectronic species.
 - D. The correct order of the first ionization enthalpies of Na, Mg, Al, and Si is $Si > Al > Mg > Na$.
 - E. The atomic radius of Cs is greater than that of Li and Rb.

Choose the correct answer from the options given below :

[NEET (UG) 2025]

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

Scan or tap for the full solution



- Q.3** Arrange the following elements in increasing order of first ionization enthalpy: Li, Be, B, C, N
- Choose the correct answer from the options given below:

[NEET (UG) 2024]

- (1) $Li < Be < B < C < N$
- (2) $Li < B < Be < C < N$
- (3) $Li < Be < C < B < N$
- (4) $Li < Be < N < B < C$

Scan or tap for the full solution



Q.4 The correct order of first ionization enthalpy for the given four elements is : [NEET (UG) 2022 (Phase 2)]

- (1) $C < F < N < O$
- (2) $C < N < F < O$
- (3) $C < N < O < F$
- (4) $C < O < N < F$

Scan or tap for the full solution



Q.5 If first ionization enthalpies of elements X and Y are 419 kJ mol^{-1} and 590 kJ mol^{-1} , respectively and second ionization enthalpies of X and Y are 3069 kJ mol^{-1} and 1145 kJ mol^{-1} , respectively. Then correct statement is :

[NEET (UG) 2022 (Phase 2)]

- (1) Both X and Y are alkaline earth metals
- (2) X is an alkali metal and Y is an alkaline earth metal
- (3) X is an alkaline earth metal and Y is an alkali metal
- (4) Both X and Y are alkali metals

Scan or tap for the full solution



Q.6 For the second period elements the correct increasing order of first ionization enthalpy is :

[NEET (UG) 2019]

- (1) $Li < B < Be < C < N < O < F < Ne$
- (2) $Li < Be < B < C < O < N < F < Ne$
- (3) $Li < B < Be < C < O < N < F < Ne$
- (4) $Li < Be < B < C < N < O < F < Ne$

Scan or tap for the full solution



Q.7 Amongst the elements with following electronic configurations, which one of them may have the highest ionisation energy ? [AIPMT 2009]

- (1) $[Ne] 3s^2 3p^2$
- (2) $[Ar] 3d^{10} 4s^2 4p^3$
- (3) $[Ne] 3s^2 3p^1$
- (4) $[Ne] 3s^2 3p^3$

Scan or tap for the full solution



Q.8 With which of the following electronic configuration an atom has the lowest ionisation enthalpy? [AIPMT 2007]

- (1) $1s^2 2s^2 2p^3$ (2) $1s^2 2s^2 2p^6 3s^1$
 (3) $1s^2 2s^2 2p^6$ (4) $1s^2 2s^2 2p^5$

Scan or tap for the full solution



Q.9 Which of the following order is wrong?

[AIPMT 2002]

- (1) $\text{NH}_3 < \text{PH}_3 < \text{AsH}_3$ – acidic
 (2) $\text{Li} < \text{Be} < \text{B} < \text{C}$ – 1st IP
 (3) $\text{Al}_2\text{O}_3 < \text{MgO} < \text{Na}_2\text{O} < \text{K}_2\text{O}$ – basic
 (4) $\text{Li}^+ < \text{Na}^+ < \text{K}^+ < \text{Cs}^+$ – ionic radius

Scan or tap for the full solution



Q.10 Correct order of 1st ionization potential among following elements Be, B, C, N, O is [AIPMT 2001]

- (1) $\text{B} < \text{Be} < \text{C} < \text{O} < \text{N}$ (2) $\text{B} < \text{Be} < \text{C} < \text{N} < \text{O}$
 (3) $\text{Be} < \text{B} < \text{C} < \text{N} < \text{O}$ (4) $\text{Be} < \text{B} < \text{C} < \text{O} < \text{N}$

Scan or tap for the full solution



ANSWER KEY

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