

Q1 2021 (31 Aug Shift 1)

Given below are two statements : one is labelled as

Assertion (A) and the other is labelled as *Reason (R)*.

Assertion (A) : Metallic character decreases and non-metallic character increases on moving from left to right in a period.

Reason (R) : It is due to increase in ionisation enthalpy and decrease in electron gain enthalpy, when one moves from left to right in a period.

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

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

Q2 2021 (27 Aug Shift 2)

The correct order of ionic radii for the ions, P^{3-} , S^{2-} , Ca^{2+} , K^+ , Cl^- is :

- (1) $P^{3-} > S^{2-} > Cl^- > K^+ > Ca^{2+}$
- (2) $Cl^- > S^{2-} > P^{3-} > Ca^{2+} > K^+$
- (3) $P^{3-} > S^{2-} > Cl^- > Ca^{2+} > K^+$
- (4) $K^+ > Ca^{2+} > P^{3-} > S^{2-} > Cl^-$

Q3 2021 (26 Aug Shift 2)

Chalcogen group elements are :

- (1) Se, Tb and Pu.
- (2) Se, Te and Po.
- (3) S, Te and Pm.
- (4) O, Ti and Po.

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Answer Key

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Q1 (2)

Q2 (1)

Q3 (2)

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#MathBoleTohMathonGo

Q1 (2)

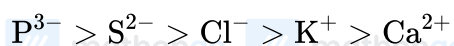
From left to right in periodic table :-

Metallic character decreases

Non-metallic character increases

⇒ It is due to increase in ionization enthalpy and increase in electron gain enthalpy.

Q2 (1)



(Correct order of ionic radii)

all the given species are isoelectronic species.

In isoelectronic species size increases with increase of negative charge and size decreases with increase in positive charge.

Q3 (2)

Group 16/oxygen family is known as Chalcogens the members are O, S, Se, Te, Po