

NEET S-BLOCK ELEMENTS — GROUP 1 GENERAL PROPERTIES — PYQS

Max. Marks: 48

Questions: 12

Section A (MCQ) — 12 questions

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

Assertion (A): Metallic sodium dissolves in liquid ammonia giving a deep blue solution, which is paramagnetic.

Reason (R): The deep blue solution is due to the formation of amide.

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 Identify the incorrect statement from the following

[NEET (UG) 2022]

- (1) Alkali metals react with water to form their hydroxides.
- (2) The oxidation number of K in KO_2 is +4.
- (3) Ionisation enthalpy of alkali metals decreases from top to bottom in the group.
- (4) Lithium is the strongest reducing agent among the alkali metals.

Scan or tap for the full solution



Q.3 Match **List - I** with **List - II**

List - I		List - II	
a.	Li	i.	absorbent for carbon dioxide
b.	Na	ii.	electrochemical cells
c.	KOH	iii.	coolant in fast breeder reactors
d.	Cs	iv.	photoelectric cell

Choose the correct answer from the options given below :

[NEET (UG) 2022]

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

Scan or tap for the full solution



Q.4 The following metal ion activates many enzymes, participates in the oxidation of glucose to produce ATP and with Na^+ , is responsible for the transmission of nerve signals. [NEET (UG) 2020]

- (1) Copper
- (2) Calcium
- (3) Potassium
- (4) Iron

Scan or tap for the full solution



Q.5 Ionic mobility of which of the following alkali metal ions is lowest when aqueous solution of their salts are put under an electric field? [NEET 2017]

- (1) K^+
- (2) Rb^+
- (3) Li^+
- (4) Na^+

Scan or tap for the full solution



Q.6 The function of "Sodium pump" is a biological process operating in each and every cell of all animals. Which of the following biologically important ions is also a constituent of this pump?

[AIPMT 2015 (Cancelled)]

- (1) K^+
- (2) Fe^{2+}
- (3) Ca^{2+}
- (4) Mg^{2+}

Scan or tap for the full solution



Q.7 Which one of the alkali metals, forms only, the normal oxide, M_2O on heating in air?

[AIPMT 2012 (Prelims)]

- (1) Rb
- (2) K
- (3) Li
- (4) Na

Scan or tap for the full solution



Q.8 The ease of adsorption of the hydrated alkali metal ions on an ion-exchange resin follows the order :

[AIPMT 2012 (Prelims)]

- (1) $\text{Li}^+ < \text{K}^+ < \text{Na}^+ < \text{Rb}^+$
- (2) $\text{Rb}^+ < \text{K}^+ < \text{Na}^+ < \text{Li}^+$
- (3) $\text{K}^+ < \text{Na}^+ < \text{Rb}^+ < \text{Li}^+$
- (4) $\text{Na}^+ < \text{Li}^+ < \text{K}^+ < \text{Rb}^+$

Scan or tap for the full solution



Q.9 The sequence of ionic mobility in aqueous solution is

[AIPMT 2008]

- (1) $\text{Rb}^+ > \text{K}^+ > \text{Cs}^+ > \text{Na}^+$
 (2) $\text{Na}^+ > \text{K}^+ > \text{Rb}^+ > \text{Cs}^+$
 (3) $\text{K}^+ > \text{Na}^+ > \text{Rb}^+ > \text{Cs}^+$
 (4) $\text{Cs}^+ > \text{Rb}^+ > \text{K}^+ > \text{Na}^+$

Scan or tap for the
full solution



Q.10 The alkali metals form salt-like hydrides by the direct synthesis at elevated temperature. The thermal stability of these hydrides decreases in which of the following orders? [AIPMT 2008]

- (1) $\text{NaH} > \text{LiH} > \text{KH} > \text{RbH} > \text{CsH}$
 (2) $\text{LiH} > \text{NaH} > \text{KH} > \text{RbH} > \text{CsH}$
 (3) $\text{CsH} > \text{RbH} > \text{KH} > \text{NaH} > \text{LiH}$
 (4) $\text{KH} > \text{NaH} > \text{LiH} > \text{CsH} > \text{RbH}$

Scan or tap for the
full solution



Q.11 The correct order of the mobility of the alkali metal ions in aqueous solution is [AIPMT 2006]

- (1) $\text{Rb}^+ > \text{K}^+ > \text{Na}^+ > \text{Li}^+$ (2) $\text{Li}^+ > \text{Na}^+ > \text{K}^+ > \text{Rb}^+$
 (3) $\text{Na}^+ > \text{K}^+ > \text{Rb}^+ > \text{Li}^+$ (4) $\text{K}^+ > \text{Rb}^+ > \text{Na}^+ > \text{Li}^+$

Scan or tap for the
full solution



Q.12 In which of the following processes, fused sodium hydroxide is electrolysed at a temperature of 330 °C for extraction of sodium? [AIPMT 2002]

- (1) Castner's process (2) Downs process
 (3) Cyanide process (4) Both (2) and (3)

Scan or tap for the
full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	2	2	4	3	3	1	3	2	4	2	1
Ques.	12										
Ans.	1										