4. IONS - ELECTROPOSITIVE IONS
SOLUTIONS

TEACHING TASK

JEE MAINS LEVEL QUESTIONS

1. Which monovalent electropositive ion is commonly found in table salt?
a) N a^+ b) K^+ c) Ca^{2+} d) Mg^{2+}

Answer:A

Solution:Table salt is NaCl, where sodium (Na) forms a monovalent (+1) ion.

2. Which of the following elements is NOT likely to form a mono-positive ion?
a) Potassium (K) b) Lithium (Li) c) Chlorine (Cl) d) Sodium (Na)

Answer:C

Solution: Chlorine is a halogen and tends to gain one electron to form Cl^- (mono-negative ion), not a mono-positive ion. Alkali metals (K, Li, Na) form M^+ ions

3. In which group of the periodic table are most mono-positive ions located?
a) Noble gases b) Halogens c) Alkali metals d) Transition metals

Answer:C

Solution:Alkali metals (Group 1) like Na, K, and Li lose one electron to form M^+ ions.

4. What is the primary function of mono-positive ions in a chemical compound?
a) Gain electrons b) Lose electrons c) Share electrons d) Attract protons

Answer:B

Solution: Mono-positive ions (e.g., Na^+, K^+) form by losing one electron to achieve stability.

5. What happens to an atom when it loses two electrons?
a) It becomes a dipositive ion b) It becomes a unipositive ion
c) It becomes a tripositive ion d) It becomes a dipositive anion

Answer:A

Solution: Losing two electrons results in a +2 charge (e.g., Mg^{2+}).

6. If an element X has an atomic number of 12, what is the likely charge of its dipositive ion?
a) +1 b) -2 c) +2 d) -1

Answer:C

Solution:Atomic number 12 is magnesium (Mg), which loses 2 electrons to form Mg^{2+}.

7. If an element with atomic number 15 loses three electrons, what charge will its ion have?
a) +1 b) +2 c) +3 d) -3

Answer:C

Solution: Atomic number 15 is phosphorus (P), which can lose 3 electrons to form P^{3+} (though it more commonly gains electrons to form P^{3-}).

8. Which of the following ions is not tripositive?
a) Fe^{3+} b) Al^{3+} c) Ca^{3+} d) B^{3+}

Answer:C

Solution: Calcium (Ca) forms Ca^{2+}, not Ca^{3+}. Fe^{3+}, Al^{3+}, and B^{3+} are valid tripositive

ions.
9. Which element, when forming a di positive ion, would have a similar electron configuration to neon?
a) Aluminum (Al) b) Magnesium (Mg) c) Nickel (Ni) d) Potassium (K)
Answer:B
Solution:Mg (atomic number 12) $\rightarrow$ Mg^{2+} has 10 electrons (same as Ne).
Others:
Al^{3+} has 10 electrons but is tripositive.
Ni^{2+} and K^{+} do not match Ne's configuration.
10. The di-positive ion formed by zinc (Zn) has how many electrons?
a) 26 b) 27 c) 28 d) 29
Answer:C
Solution:Zn atomic number = 30 $\rightarrow$ Neutral Zn has 30 electrons.
Zn^{2+} loses 2 electrons $\rightarrow$ 28 electrons remain.
11. What is the electron configuration of a di-positive ion?
a) The same as its neutral atom
b) One less electron shell than its neutral atom
c) Two less electron shells than its neutral atom
d) Three less electrons shells than its neutral atom
Answer:B
Solution:A dipositive ion (e.g., Mg^{2+}) loses 2 electrons from its valence shell, reducing the number of shells by one (e.g., Mg: 2,8,2 $\rightarrow$ Mg^{2+}: 2,8).
12. The Di-positive electropositive ion formed by which element is represented by the symbol Ba^{2+}?
a) Boron b) Barium c) Bismuth d) Beryllium
Answer:B
Solution: Barium (Ba) is an alkaline earth metal (Group 2) and forms Ba^{2+} by losing 2 valence electrons.
13. What is the charge on the Dipositive electropositive ion formed by strontium?
a) 1+ b) 2+ c) 3+ d) 4+
Answer:B
Solution:Strontium (Sr, Group 2) loses 2 electrons to form Sr^{2+}
14. Valency electrons and valency respectively in Ar
A) 7,0 B) 8,0 C) 0,7 D) 0,82.
Answer:B
Solution:Argon is a noble gas with 8 valence electrons and zero valency (inert; does not form compounds under normal conditions)
15. A tripositively charged ion of an element 'X' has the same number of electrons as in trinegatively charged N^{-3} . Then identify 'X'.
A) Cu B) Al C) Mg D) Si
Answer:B
Solution:N^{3-} has 7 (N) + 3 = 10 electrons.
Al^{3+} (Aluminum) has 13 (Al) – 3 = 10 electrons.
16. The cation present in Al_2O_3 is
A) Al^{2+} B) Al^{+} C) Al^{3+} D) Al^{4+}
Answer:C
Solution:Aluminum in Al_2O_3 has a +3 oxidation state (Al^{3+} balances O^{2-})

17. Variable valency is exhibited, since electrons are lost from an element from the shell. (valence / penultimate)
A) Valence Shell B) Penultimate Shell C) Both D) None
Answer:C
Solution:Transition elements (like Fe, Cu, Mn) often lose electrons from the valence shell (ns) and penultimate shell (n–1)d, leading to variable oxidation states.
18. Valency of tin in $SnCl_2$ and $SnCl_4$ is
A) 3,2 B) 2,3 C) 3,4 D) 2,4
Answer:D
Solution:In $SnCl_2$, tin (Sn) shows +2 valency.
In $SnCl_4$, it shows +4 valency (variable valency due to inert pair effect).
19. The valencies of the underlined elements or radicals in the following compounds.$\underline{Na}_2O$, $\underline{P}Cl_5$, $\underline{Ca}O$, $\underline{Al}(OH)_3$
A) 1,5,2,1 B) 2,5,2,3 C) 2,3,2,1 D) 1,5,2,3
Answer:D
Solution:Na in Na_2O: +1 (Group 1).
P in PCl_5: +5 (Group 15, max valency).
Ca in CaO: +2 (Group 2).
Al in $Al(OH)_3$: +3 (Group 13).
20. Which of the following electronic configuration is not wrong ?
A) Be (3) = 2, 1 B) O (8) = 2, 6 C) S (16) = 2, 6, 8 D) Ca (20) = 2, 8, 10
Answer:B
Solution:Oxygen (O, Z=8): Correct configuration = 2,6 (valence electrons).
Wrong options:
A) Be (Z=4) cannot be 2,1 (actual: 2,2).
C) S (Z=16) cannot be 2,6,8 (actual: 2,8,6).
D) Ca (Z=20) cannot be 2,8,10 (actual: 2,8,8,2).
21. Which of the following statement is correct
A) Nickel ion is a Divalent ion B) Antimonous ion is a Trivalent ion
C) Ammonium ion is a Monovalent ion D) All the above
Answer:D
Solution:A) Nickel ion is divalent (Ni^{2+}) $\rightarrow$ Correct (common oxidation state).
B) Antimonous ion is trivalent (Sb^{3+}) $\rightarrow$ Correct (antimony forms Sb^{3+} and Sb^{5+}).
C) Ammonium ion is monovalent (NH_4^+) $\rightarrow$ Correct (acts as +1 ion).
22. A neutral atom of an element has a nucleus with a nuclear charge 13 times and mass 27 time that of hydrogen nucleus. How many electrons would be in its stable positively charged ion
A) 27 B) 14 C) 13 D) 10
Answer:D
Solution:Nuclear charge = +13 $\rightarrow$ Atomic number (Z) = 13 (Aluminum, Al).
Mass number = 27 $\rightarrow$ Neutral Al has 13 electrons.
Stable ion: Al^{3+} (loses 3 electrons) $\rightarrow$ 10 electrons remaining.
23. Which of the following compounds contains an electropositive ion with a 2+ charge?
a) KBr b) CaO c) Al_2O_3 d) LiF

Answer:B

Solution:CaO: Calcium (Ca) forms Ca^{2+} (Group 2).

Other options:

KBr: K^+ (monovalent).

Al_2O_3: Al^{3+} (trivalent).

LiF: Li^+ (monovalent).

24. In the compound $Mg(NO_2)_2$, what is the electropositive ion?

a) Magnesium (Mg)b) Nitrogen (N) c) Oxygen (O) d) Hydrogen (H)

Answer:A

Solution:$Mg(NO_2)_2$ contains Mg^{2+} (electropositive ion) and NO_2^- (nitrite anion).

25. The compound Na_3PO_4 contains which electropositive ion?

a) Sodium (Na) b) Phosphorus (P) c) Oxygen (O) d) Chlorine (Cl)

Answer:A

Solution:Na_3PO_4 (Sodium phosphate) has Na^+ ions (monovalent) and PO_4^{3-} anion.

MULTIPLE CORRECT ANSWER TYPE

1. Identify elements exhibiting variable valency: (Select all that apply)

A. Fe B. Ne C. Cu D. Cr

Answer:A,C,D

Solution:Iron (Fe): Exhibits +2 (ferrous) and +3 (ferric) oxidation states

Copper (Cu): Shows +1 (cuprous) and +2 (cupric) oxidation states

Chromium (Cr): Displays +2, +3, and +6 oxidation states

Neon (Ne): Noble gas with fixed zero valency (does not form compounds)

2. Which of the following statement are wrong ?

(A) An atom is electrically neutral

(B) An atom & its ion have an unequal number of protons

(C) The size of a cation is smaller than that of corresponding atom

(D) An atom & its corrosponding anion have equal number of electrons

Answer:B,D

Solution:

A) Correct: Atoms are electrically neutral (protons = electrons)

B) Wrong: Ions have same number of protons as parent atom (only electron count changes)

C) Correct: Cations are smaller than parent atom (lost electrons reduce electron cloud)

D) Wrong: Anions have MORE electrons than parent atom

3. Which of the following statements are correct

A) Atom can be converted into anion by gaining electrons.

B) Valency and valency shell electrons gives the same meaning.

C) Noble gases are stable regarding chemical reactions.

Answer:A,C

Solution:A) Correct: Atoms gain electrons to form anions (e.g., $O + 2e^- \rightarrow O^{2-}$)

B) Wrong:

Valency = combining capacity (e.g., N has valency 3 or 5)

Valence electrons = electrons in outermost shell (e.g., N has 5 valence electrons)

C) Correct: Noble gases have complete octet/duplet (exceptionally stable)

REASON AND ASSERTION TYPE

A) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion.
B) Both Assertion and Reason are true, but Reason is NOT the correct expla nation for Assertion.
C) Assertion is true, but Reason is false. D) Assertion is false, but Reason is true.
4. Assertion: Electropositive ions are formed by the loss of electrons.
Reason: Electropositive ions are atoms that have a tendency to lose electrons in order to achieve a stable electron configuration.

Answer:A

Solution:Assertion is true: Electropositive ions (cations) are indeed formed by losing electrons (e.g., $Na \rightarrow Na^+ + e^-$).
Reason is true and explains the Assertion: Atoms lose electrons to achieve stable noble gas configurations (e.g., Na loses 1 electron to attain Ne configuration).
The Reason correctly explains why the Assertion occurs.
5. Assertion: Alkali metals readily form electropositive ions.
Reason: Alkali metals have one valence electron, and they tend to lose this electron easily to achieve a stable noble gas configuration.

Answer:A

Solution:Assertion is true: Alkali metals (Group 1) readily form +1 ions (e.g., $K \rightarrow K^+$).
Reason is true and explains the Assertion: Having just one valence electron makes it easy to lose, achieving a stable configuration (e.g., K loses 1 electron to attain Ar configuration).
6. Assertion: Electropositive ions are generally smaller in size compared to their parent atoms.
Reason: The loss of electrons reduces the electron cloud, leading to a decrease in the ionic radius of electropositive ions.

Answer:A

Solution:Assertion is true: Cations are smaller than their parent atoms (e.g., $Na^+ < Na$).
Reason is true and explains the Assertion:
Loss of electrons reduces electron-electron repulsion.
The remaining electrons are pulled closer to the nucleus by the same nuclear charge.

STATEMENT TYPE

1. Both statement I and II are correct and statement II is correct explanation of statement I.
2. Both statement I and II are correct and statement II is not correct explanation of statement I.
3. Statement I is correct and statement II is incorrect.
4. Statement I is incorrect and statement II is correct.
7. Statement-I : Electropositive ions play a crucial role in the conduction of electricity in molten salts.
Statement-II : Electropositive ions in molten salts can move freely and carry an electric current due to their ability to migrate in response to an applied electric

field.

Answer:1

Solution:Statement-I is correct: In molten salts (e.g., NaCl), electropositive ions (Na^+) are responsible for electrical conduction.

Statement-II is correct and explains Statement-I: In the molten state, ions are free to move and carry charge when an electric field is applied, enabling conductivity.

8. Statement-I : Electropositive ions are commonly found in metals.

Statement-II : Metals tend to lose electrons easily, forming electropositive ions, which are responsible for the metallic bonding in metals.

Answer:1

Solution:Statement-I is correct: Metals (e.g., Na, Mg) form electropositive ions (Na^+, Mg^{2+}).

Statement-II is correct and explains Statement-I:

Metals lose valence electrons easily due to low ionization energy.

These "free" electrons and cations form metallic bonds (electron sea model)

COMPREHENSION TYPE

When an atom looses one or more electrons to get stability, The number of electrons lost by an atom of an element is its Positive valency and the ion is called Cation or Electropositive ion. Mono, Di, Tri and Tetravalent ions are formed by loosing of 1,2,3,4 electrons respectively

9. Which of the following element exist as only trivalent ions

A) Arsenic B) Cobolt C) Gold D) Boron

Answer:D

Solution:Boron (B) typically forms B^{3+} ions by losing all 3 valence electrons (Group 13 element).

Example: In B_2O_3, boron is +3.

10. Which of the following element shows multiple valancies

A) Barium B) Aluminium C) Carbon D) Zinc

Answer:C

Solution:Carbon (C) exhibits multiple valencies due to its ability to form covalent bonds with varying oxidation states:

+4 (e.g., CO_2, CH_4).

+2 (e.g., CO).

-4 (e.g., CH_4, where carbon is more electronegative than H).

INTEGER TYPE

19. Charge on mercuric ion _____

Answer:+2

Solution:The term "mercuric" refers to mercury (Hg) in its +2 oxidation state (Hg^{2+}).

This distinguishes it from "mercurous" (Hg_2^{2+}, where mercury has a +1 oxidation state per atom).

MATRIX MATCHING TYPE

20.

Column I	Column II
Element	Variable Valencies
(A) Iron	(P) 1,2
(B) Copper	(Q) 2,3
(C) Tin	(R) 3 only
(D) Aluminium	(S) 2,4

Answer:A-Q,B-P,C-S,D-R

Solution:

Element	Variable Valencies
(A) Iron	(Q) 2,3
(B) Copper	(P) 1,2
(C) Tin	(S) 2,4
(D) Aluminium	(R) 3 only

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

1. Fe^{3+} will be pronounced as

A) Ferrous B) Irum C) Ferric D) Ironic

Answer:C

Solution:Fe^{2+} is called Ferrous (lower oxidation state).

Fe^{3+} is called Ferric (higher oxidation state).

2. Which of the following contains positive charge

A) Ammonium B) Nitrogen C) Oxide D) Argon

Answer:A

Solution:Ammonium (NH_4+) is a polyatomic cation with a +1 charge.

3. In which group of the periodic table do elements tend to form monovalent electropositive ions?

a) Group 1 b) Group 14 c) Group 17 d) Group 18

Answer:A

Solution:Group 1 (Alkali metals): Lose 1 electron to form M^+ ions (e.g., Na^+, K^+).

4. Number of electrons present in ammonium ion are

A) 9 B) 10 C) 11 D) 12

Answer:B

Solution:Nitrogen (N): Atomic number = 7 $\rightarrow$ 7 electrons.

Hydrogen (H): 4 atoms × 1 electron = 4 electrons.

Total electrons in neutral NH_4 = 7 + 4 = 11.

NH_4^+ loses 1 electron $\rightarrow$ 11 – 1 = 10 electrons.

JEE MAIN LEVEL QUESTIONS

1. Which of the following is a property of monovalent electropositive ions?

a) Gain electrons easily b) Form negative ions

c) Have a stable electron configuration d) Lose electrons easily

Answer:D

Solution:Monovalent electropositive ions (e.g., Na^+, K^+) form by losing one electron to achieve stability.

2. What is the chemical symbol for a dipositive ion formed by an element with an atomic number of 20?

a) O^{2-} b) Ca^{2+} c) N^{2-} d) H^+

Answer:B

Solution: Atomic number 20 is calcium (Ca), which loses 2 electrons to form Ca^{2+}.

3. Which of the following elements is least likely to form a dipositive ion?
a) Aluminum (Al) b) Iron (Fe) c) Potassium (K) d) Sulfur (S)
Answer:C
Solution:Potassium is an alkali metal. Alkali metals only have one valence electron, and they readily lose this electron to form a monopositive ion (K^+). To form a dipositive ion, they would need to lose two electrons, which is significantly more energy-intensive. Since they are highly reactive with just one valence electron, they are very likely to form a +1 charge and not a +2 charge.
4. What is the common charge of zinc when it forms an ion?
a) +1 b) +2 c) -1 d) -2
Answer:B
Solution: Zinc (Zn) consistently forms Zn^{2+} by losing 2 valence electrons
5. Which of the following elements is most likely to form a tripositive electropositive ion?
a) Oxygen (O) b) Nitrogen (N) c) Aluminum (Al) d) Fluorine (F)
Answer:C
Solution:Aluminum forms Al^{3+} by losing 3 valence electrons. Others (O, N, F) are nonmetals that form anions.
6. Which element, when forming a di-positive ion, would have a similar electron configuration to argon?
a) Potassium (K) b) Calcium (Ca) c) Scandium (Sc) d) Titanium (Ti)
Answer:B
Solution:Ca (atomic number 20) $\rightarrow Ca^{2+}$ has 18 electrons, matching argon's configuration.
7. In which group of the periodic table are elements most likely to form di-positive ions?
a) Group 1 (Alkali metals) b) Group 2 (Alkaline earth metals)
c) Group 17 (Halogens) d) Group 18 (Noble gases)
Answer:B
Solution: Group 2 elements (e.g., Mg, Ca) lose 2 electrons to form M^{2+} ions.
8. What is the charge on the electropositive ion formed by an element in Group 2 of the periodic table?
a) 1+ b) 2+ c) 3+ d) 4+
Answer:B
Solution: Group 2 elements form +2 ions (e.g., Mg^{2+}, Ba^{2+}).
9. The mono-positive electropositive ion formed by which element has the symbol Rb^+?
a) Rubidium (Rb) b) Radium (Ra) c) Rhodium (Rh) d) Ruthenium (Ru)
Answer:A
Solution:Rubidium (Group 1) forms Rb^+ by losing 1 electron.
10. The anion is usually
A) larger in size than consecutive atom
B) smaller in size than consecutive atom
C) same in size than consecutive atom D) None of the above
Answer:A
Solution:Anions gain electrons, increasing electron-electron repulsion and ionic

radius (e.g., Cl^- > Cl).
11. Valency of Iron in $FeCl_2$ and $FeCl_3$is
A) 3,2 B) 2,3 C) 3,4 D) 2,4
Answer:B
Solution:$FeCl_2$: Iron is +2 (ferrous).
$FeCl_3$: Iron is +3 (ferric).
12. Which of the following is a Divalent Radical
A) Phosphonium B) Stannous C) Aurous D) Arsenous
Answer:B
Solution:Stannous (Sn^{2+}): Divalent (e.g., $SnCl_2$).
Others:
Phosphonium (PH_4^+): Monovalent.
Aurous (Au^+): Monovalent.
Arsenous (As^{3+}): Trivalent.

ADVANCED LEVEL QUESTIONS
MULTIPLE CORRECT ANSWER TYPE

1. Which of the following statements is not correct about Electropositive ions
A) The number of electrons in electropositive ions are less in number than protons due to loss of electons
B) The Size of the Electropositive ion is considerably more than a neutral atom due to increase of attractions of Protons on electrons left after froming ion.
C) Size of the Electropositive ion is directly proportional to number of electrons lost for a particular element.
Answer:B,C
Solution:A) Correct:
Electropositive ions (cations) have fewer electrons than protons because they lose electrons to form positive ions. For example, Na atom (11 protons, 11 electrons) becomes Na^+ ion (11 protons, 10 electrons).
B) Incorrect:
The size of an electropositive ion is smaller than its neutral atom, not larger.
When electrons are lost:
The remaining electrons experience greater effective nuclear charge (same number of protons attracting fewer electrons).
Electron-electron repulsion decreases, causing the electron cloud to contract.
C) Incorrect:
The size of the ion is inversely proportional to the number of electrons lost. More electrons lost = smaller ion size due to increased effective nuclear charge on remaining electrons.
2. Select elements showing variable valency in common compounds: (Select all that apply)
A. Co B. Hg C. Fr D. I
Answer:A,B,D
Solution:A. Co $\rightarrow$ Shows +2 (Co^{2+}) and +3 (Co^{3+}) valencies.
B. Hg $\rightarrow$ Exhibits +1 (Hg_2^{2+}, mercurous) and +2 (Hg^{2+}, mercuric) states.
C. Fr $\rightarrow$ As an alkali metal (Group 1), it only forms +1 (Fr^+) ions. No variable valency.
D. I $\rightarrow$ Displays -1 (I^-), +1 (I^+), +5 (IO_3^-), +7 (IO_4^-).

REASON AND ASSERTION TYPE

A) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion.
B) Both Assertion and Reason are true, but Reason is NOT the correct expla nation for Assertion.
C) Assertion is true, but Reason is false. D) Assertion is false, but Reason is true.
3. Assertion: Alkali metals readily form electropositive ions.
Reason: Alkali metals have one valence electron, and it is energetically favorable for them to lose this electron, resulting in the formation of electropositive ions.

Answer:A

Solution:Assertion is true: Alkali metals (Group 1) like Na, K readily form M^+ ions (electropositive ions).
Reason is true and explains the Assertion:
Alkali metals have 1 valence electron in their outermost shell.
Losing this electron is energetically favorable because it achieves a stable noble gas configuration.
4. Assertion: The charge of electropositive ions is always positive.
Reason: Electropositive ions are formed by the loss of electrons, leading to an excess of protons and a positive charge.

Answer:A

Solution:Assertion is true: Electropositive ions (e.g., Na^+, Ca^{2+}) always carry a positive charge.
Reason is true and explains the Assertion:
These ions form by losing electrons, leaving the atom with more protons than electrons.
5. Assertion: Electropositive ions have a strong tendency to gain electrons.
Reason: Electropositive ions actually have a tendency to lose electrons to achieve a stable electron configuration.

Answer:D

Solution:Assertion is false: Electropositive ions do not gain electrons—they are already electron-deficient (positively charged).
Reason is true:
Electropositive ions form by losing electrons (e.g., $K \rightarrow K^+ + e^-$).
Their "tendency" is to retain their positive charge, not gain electrons.

COMPREHENSION TYPE

When an atom looses one or more electrons to get stability, The number of electrons lost by an atom of an element is its Positive valency and the ion is called Cation or Electropositive ion. Mono, Di, Tri and Tetravalent ions are formed by loosing of 1,2,3,4 electrons respectively
6. Which of the following element exist as both Bivalent and trivalent ions
A) Tin B) Manganese C) Arsenic D) Mercury

Answer:B

Solution:Manganese (Mn) exhibits both +2 (bivalent) and +3 (trivalent) oxidation states in its compounds:

Mn^{2+} (e.g., $MnCl_2$ - manganese(II) chloride)
Mn^{3+} (e.g., Mn_2O_3 - manganese(III) oxide)

INTEGER TYPE

7. Valency of Mercuric ion is_____

Answer:2

Solution:The term "mercuric" refers to mercury in its +2 oxidation state (Hg^{2+}).
Example compound: $HgCl_2$ (mercuric chloride).

8. Valency of Plumbic ion is_____

Answer:4

Solution:"Plumbic" refers to lead (Pb) in its +4 oxidation state (Pb^{4+}).
Example compound: PbO_2 (plumbic oxide).

9. Common valency exhibited by Tin and Lead is_____

Answer:2

Solution:Both tin (Sn) and lead (Pb) in Group 14 commonly exhibit +2 valency due to the inert pair effect:
Stannous (Sn^{2+}): $SnCl_2$ (tin(II) chloride).
Plumbous (Pb^{2+}): PbO (lead(II) oxide).

MATRIX MATCHING TYPE

10. Column I Column II

Element	Ion State
(A) Sodium	(P) Tetrapositive
(B) Carbon	(Q) Tripositive
(C) Magnesium	(R) Monopositive
(D) Aluminium	(S) Dipositive

Answer:A-R,B-P,C-S,D-Q

Solution:

Element	Ion State
(A) Sodium	(R) Monopositive
(B) Carbon	(P) Tetrapositive
(C) Magnesium	(S) Dipositive
(D) Aluminium	(Q) Tripositive

KEY

			TEACHING TASK							
			JEE MAINS LEVEL QUESTIONS							
1	2	3	4	5	6	7	8	9	10	
A	C	C	B	A	C	C	C	B	C	
11	12	13	14	15	16	17	18	19	20	
B	B	B	B	B	C	C	D	D	B	
21	22	23	24	25						
D	D	B	A	A						
			JEE ADVANCED LEVEL QUESTIONS							
1	2	3	4	5	6	7	8	9	10	
A,C,D	B,D	A,C	A	A	A	1	1	D	C	
11	12									
2	A-Q,B-P,C-S,D-R									
			LEARNERS TASK							
			CUQ'S							
1	2	3	4							
C	A	A	B							
			JEE MAIN LEVEL QUESTIONS							
1	2	3	4	5	6	7	8	9	10	
D	B	C	B	C	B	B	B	A	A	
11	12									
B	B									
			ADVANCED LEVEL QUESTIONS							
1	2	3	4	5	6	7	8	9		
B,C	A,B,D	A	A	D	B	2	4	2		
10										
A-R,B-P,C-S,D-Q										