Foundation

Udaan 2025
Chemistry
Essential Chemistry Basics for Class 10

DHA: 02

Q 1 The number of valence electrons in a sulphide ion, S^{2-} is:

(A) 16 (B) 10

(C) 9 (D) 8

Q 2 Four elements W, X, Y and Z contain 8, 11, 9 and 17 protons per atom respectively. The element which cannot form an anion is most likely to be:

(A) W (B) X

(C) Y (D) Z

Q 3 Electronic configuration of Ca^{2+} is shown by:

(A) Ar (B) He

(C) F (D) Ne

Q 4 What will be the overall charge on ammonium ion?

(A) 1- (B) 1+

(C) 2- (D) 2+

Q 5 The metal M forms an oxide, M_2O_3. The formula of its nitride will be:

(A) M_2N_3 (B) MN

(C) M_2N (D) M_3N_2

Q 6 An element M forms the chloride (MCl_2). What will be the formula of its phosphate?

(A) M_3PO_4 (B) $M_3(PO_4)_2$

(C) $M_3(PO_4)_4$ (D) $M(PO_4)_3$

Q 7 Formula of sodium carbonate is_____ and that of ammonium sulphate is_____

(A) Na_2CO_3 and NH_4SO_4

(B) $NaHCO_3$ and $(NH_4)_2SO_4$

(C) Na_2CO_3 and $(NH_4)_2SO_4$

(D) $NaCO_3$ and NH_4SO_4

Q 8 An element X with atomic number 13 combines with another element Y of atomic number 17. The formula of the compound will be:

(A) XY_2 (B) X_2Y

(C) X_3Y (D) XY_3

Answer Key

Q1	**D**
Q2	**B**
Q3	**A**
Q4	**B**
Q5	**B**
Q6	**B**
Q7	**C**
Q8	**D**

Hints & Solutions

Q 1 **Text Solution:**

The number of electrons in S^{2-} will be 8 . After gaining 2 electrons in valence shell it will complete the octet configuration.

Video Solution:

Q 2 **Text Solution:**

Try to think about an element with 1 valence electron in the valence shell.

Video Solution:

Q 3 **Text Solution:**

In Ca^{2+} the number of electrons will be 18 and the number of protons will be 20.

Video Solution:

Q 4 **Text Solution:**

Use Sunil bhaiya's FON trick to identify the overall charge on NH_4^X.

Video Solution:

Q 5 **Text Solution:**

Try to decode the valency of M from M_2O_3. Now, criss-cross the valency with nitrogen to get the formula of nitride.

Video Solution:

Q 6 **Text Solution:**

Try to decode the valency of M from MCl_2. Now, criss-cross the valency with nitrogen to get the formula of phosphate.

Video Solution:

Q 7 **Text Solution:**

Criss-cross the valencies of elements to obtain the correct formula.

Video Solution:

Q 8 **Text Solution:**

Criss-cross the valencies of elements to obtain the correct formula.

Video Solution: