



CHEMISTRY

BOOKS - ICSE

ATOMS, MOLECULES AND RADICALS

Exercise

1. Define the following terms :

(a) Atoms

(b) Molecules

(c) Radicals

(d) Valency

(e) Periodic table



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2. Write the names of the elements present in the following compounds.

(a) Common salt (b) Ammonia

(c) Sulphuric acid (d) Glucose

(e) Sodium hydroxide (f) Acetic acid



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3. Write the symbols and valencies of the following radicals:

(a) Magnesium ion (b) Ammonium

(c) Carbonate (d) Nitrate

(e) Oxide (f) Bisulphate

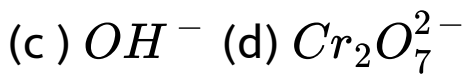
(g) Aluminium ion



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4. Name the following radicals

(a) SO_4^{2-} (b) HCO_3^-



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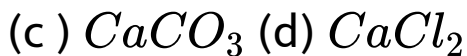
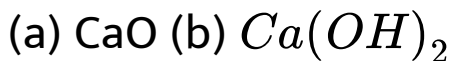
5. (a) Name one ion for each of the valencies +1, +2 and +3.

(b) Name one ion for each of the valencies -1, -2 and -3.



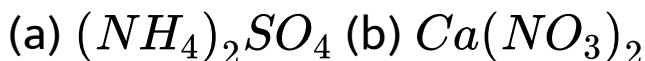
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6. The valency of calcium is 2. Write the valencies of other radicals in the following compounds :



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7. Write the names of the following compounds :



(c) FeS (d) Na_3PO_4

(e) NH_4OH (f) $CuCO_3$

(e) NH_4OH (h) $ZnCl_2$

(g) HgO (h) $ZnCl_2$

(i) ZnS (j) H_2S



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8. Write the molecular formulae of :

(a) Sodium sulphide

(b) Magnesium oxide

(c) Calcium hydroxide

(d) Hydrogen chloride

(e) Sulphuric acid

(f) Iron (II) sulphide

(g) Iron (III) sulphite (h) Nitric acid

(i) Calcium phosphate

(j) Aluminium sulphate

(k) Magnesium nitride



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9. The valency of sodium is one. Write the molecular formula for the following

compounds of sodium

(a) sodium oxide (b) sodium sulphate

(c) sodium carbonate (d) sodium hydroxide

(e) sodium nitrate



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10. What is variable valency? Give two examples of elements showing variable valency.



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11. Give the group number of the following elements present in periodic table

(a) Magnesium (b) Carbon

(c) Sulphur (d) Neon



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12. An element belongs to group VA. What would be its valency? Name two such elements.



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13. An element belongs to group II. What would be its valency ? Write the formulae of molecules of compounds it will form with elements in VA, VIA and VII A groups.



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Objective Type Questions Fill In The Blanks

1. Atoms are



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2. An ion with positive charge is called.....



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3. An ion with negative charge is called.....



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4. $2H_2$ means twoof hydrogen.



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5.is a triatomic molecule.



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6. Metals havevalency.



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7. Chemical name of caustic soda is.....



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Tick The Correct Answer

1. The valency of iron in Fe_2O_3 is

A. 1

B. 2

C. 3

D. 6

Answer:



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2. Which of the following has valency 4 ?

A. aluminium

B. oxygen

C. carbon

D. phosphorus

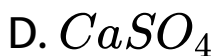
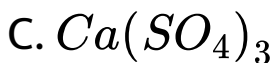
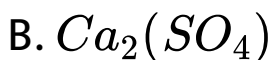
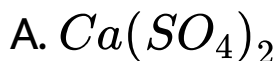
Answer:



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3. The sulphate radical is written as SO_4^{2-} ,

What is the formula of calcium sulphate



Answer:



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4. Which of the following exhibits variable valency?

A. calcium

B. copper

C. carbon

D. chlorine

Answer:



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State The Term For The Following

1. The number of atoms present in one molecule of an element is called its_____



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2. The symbolic representation of a molecule.....



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3. A group of atoms that react as a single unit.....



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4. The combining capacity of an element



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5. The tabular arrangement of elements in horizontal rows and vertical columns.....



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