


## Naming Ionic Compounds

- Polyatomic ions containing oxygen and one another element are **oxyanions**
  - Base name of the oxyanion is provided by the element that is not oxygen
    - For two possible groupings, the one with more oxygen atoms uses the suffix *-ate*, the one with fewer oxygen atoms uses the suffix *-ite*
    - For four groupings, the prefix *per-* is added to *-ate* for the compound with the most oxygen atoms
    - The prefix *hypo-* is added to *-ite* for the compound with the least oxygen atoms

Oxyanions of  
chlorine: 

$\text{ClO}^-$	Hypochlorite
$\text{ClO}_2^-$	Chlorite
$\text{ClO}_3^-$	Chlorate
$\text{ClO}_4^-$	Perchlorate

(Q.13)



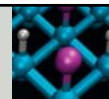
- Determine the names of the following ionic compounds
  - $\text{Fe}_2\text{O}_3$
  - $\text{Na}_2\text{O}$
  - $\text{Ca}(\text{NO}_3)_2$

1) Iron(III) oxide

2) Sodium oxide

3) Calcium nitrate

(Q. 14)



What is the name of  $\text{Cl}_2\text{O}_7$ ?

- Chloride oxide
- Dichloride oxide
- Dichlorine oxide
- Dichlorine heptoxide
- Chlorine(VII) oxide

Answer: Dichlorine heptoxide

Copyright ©2019 Cengage Learning. All Rights Reserved. May not be scanned, copied or duplicated, or posted to a publicly accessible website, in whole or in part.

66

(Q.15)



What is the formula of vanadium(V) oxide?

- $\text{V}_5\text{O}$
- $\text{V}_5\text{O}_2$
- $\text{V}_2\text{O}_5$

Answer:  $\text{V}_2\text{O}_5$

Copyright ©2019 Cengage Learning. All Rights Reserved. May not be scanned, copied or duplicated, or posted to a publicly accessible website, in whole or in part.

67

### HW Assignments:

- Problem set 1, Chapter 1 HW and Chapter 2 HW will be due on **September 10 at 11:55 PM**
- Quiz 1 – will assign this Friday through OWL.
  - ✓ Due on **September 10 at 11:55 PM**
  - ✓ Covers Chapter 1 and 2
  - ✓ 6 MCQs
  - ✓ Duration 15 minutes
  - ✓ Two attempts