

HONORS CHEMISTRY FINAL EXAM CONTENT GUIDE

STUDY GUIDE

Items are directly referenced to and in the order of the **California Content Standards for Chemistry**
DO read the standards as you review this list to assist you in evaluating the information and assessing the skills you will be required to demonstrate. There are a total of 75 questions, 18 of them are calculations that you must complete.

1. Acids & Bases – 5 Acid Nomenclature : Know the required acids and their formulas
2. Acids & Bases – 5c Weak Acids/Electrolytes-dissociation - weak vs strong electrolytes
3. Atomic Structure – 1 Atomic Theory: Dalton's Atomic Theory
4. Atomic Structure – 1a Periodic Table - Chemical Symbols
5. Atomic Structure – 1a Atomic Number
6. Atomic Structure – 1b Periodic Table Groups
7. Atomic Structure – 1b Periodic Table Groups
8. Atomic Structure – 1b Periodic Table Groups
9. Atomic structure - 1e/h* Structure of an atom
10. Atomic Structure – 1g* Periodic Table – Position meaning
11. Atomic Structure – 1h* Atomic Theory: Historical evidence of the structure of an atom
12. Atomic Structure - Periodic Table Average atomic mass
13. Chemical Bonds – 2 a Predicting formulas
14. Chemical Bonds – 2a Anions and Cations
15. Chemical Bonds – 2a Definition – Molecule
16. Chemical Bonds – 2a/Acids and Bases – 5a Non electrolytes-definition
17. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts - Metathesis Reactions precipitation rxns
18. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Identifying Spectator ions
19. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Metathesis Reactions gas producing rxns
20. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Net ionic equations neutralization rxns
21. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Net ionic equations
22. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Solubility Rules
23. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Solubility Rules
24. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Solubility Rules
25. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Spectator ions
26. Chemical Bonds – 2a/Acids and Bases – 5a Properties of Salts Electrolytes
27. Chemical Bonds – 2b Diatomic Molecules
28. Chemical Bonds – 2c/Acids and Bases – 5a Properties of Salts (Ionic Compounds)
29. Conservation of Matter and Stoichiometry – 3 e Calculation % Comp from formula given
30. Conservation of Matter and Stoichiometry – 3 e Calculation gram-gram no balancing
31. Conservation of Matter and Stoichiometry – 3 e Calculation gram-mol
32. Conservation of Matter and Stoichiometry – 3 e Calculation grams-atoms-must calc MM
33. Conservation of Matter and Stoichiometry – 3 e Calculation Limiting Reactant definition
34. Conservation of Matter and Stoichiometry – 3 e Calculation Limiting reactant mol-mol no balancing
35. Conservation of Matter and Stoichiometry – 3 e Calculation mol-mol no balancing
36. Conservation of Matter and Stoichiometry – 3 g* How to Id Reactions combination/synthesis
37. Conservation of Matter and Stoichiometry – 3 g* How to Identify Reactions decomposition
38. Conservation of Matter and Stoichiometry – 3a Balancing
39. Conservation of Matter and Stoichiometry – 3a Balancing***
40. Conservation of Matter and Stoichiometry – 3a Nomenclature Fixed Charge Ionic Compounds
41. Conservation of Matter and Stoichiometry – 3a Nomenclature Ion names
42. Conservation of Matter and Stoichiometry – 3a Nomenclature Molecular Naming
43. Conservation of Matter and Stoichiometry – 3a Nomenclature Polyatomic Ions
44. Conservation of Matter and Stoichiometry – 3a Nomenclature Variable Ionic Compounds
45. Conservation of Matter and Stoichiometry - 3b Definition: mole Definition
46. Conservation of Matter and Stoichiometry – 3c Calculation Avogadro's Number atoms-grams
47. Conservation of Matter and Stoichiometry - 3d Calculation Empirical Formula from % Comp
48. Conservation of Matter and Stoichiometry - 3d Calculation Formula Weight
49. Conservation of Matter and Stoichiometry - 3d Calculation Mole to Mole no Balancing
50. Conservation of Matter and Stoichiometry - 3d Calculation Molecular Formula –EF provided
51. Conservation of Matter and Stoichiometry - 3d Calculation Molecular Formula from % comp***
52. Conservation of Matter and Stoichiometry - 3d Calculation Moles-intermolar relationships

53. Conservation of Matter and Stoichiometry - 3d Empirical Formula by Inspection
54. Conservation of Matter and Stoichiometry - 3d Empirical Formula definition
55. Conservation of Matter and Stoichiometry – 3e Calculation Limiting reactant grams-grams MUST balance but MM provided
56. Conservation of Matter and Stoichiometry – 3f* Calculation Percent Yield
57. Conservation of Matter and Stoichiometry – 3f* Calculation Percent Yield w/Stoich **
58. Redox: Assigning oxidation numbers
59. Redox: Definitions-oxidation and reduction
60. Redox: Identifying redox reactions
61. Assigning oxidation numbers
62. Nuclear Processes – 11 nuclear reactions-balancing
63. Nuclear Processes – 11c Calculation-Isotopes - Avg Atomic Mass
64. Nuclear Processes – 11c Isotopes/Symbol recognition
65. Nuclear Processes – 11d nuclear decay-identification of
66. Nuclear Processes – 11d types of radioactive decay
67. Nuclear Processes – 11e nuclear radiation - degree of damage
68. Solutions – 6 a Definition of solvent and solute
69. Solutions – 6 Definition of solution
70. Solutions – 6f* separation techniques – Distillation, Chromatography, Filtration, Electrolysis
71. Tools: Density w/conversion
72. Tools: Metric Prefixes
73. Tools: Properties of Matter
74. Tools: SI Units
75. Tools: SigFigs: