



SCIENCE OLYMPIAD
— AT THE —
UNIVERSITY OF FLORIDA

Northern Regional: January 19th, 2019

Chemistry Lab C Answer Sheet

Name(s): _____

Team Name: _____

School Name: _____

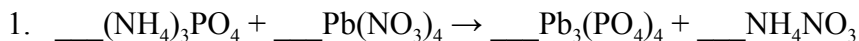
Team Number: _____

Rank: _____

Score: _____

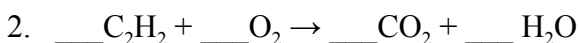
Student Names: _____

FINAL SCORE: _____

**UFSO Chemistry Lab Answer Sheet****General Chemistry - Part 1 (51 points)****Balance the following chemical equations and identify the type of reaction. (5 points each)**

a. Type: _____

b. Sum of Coefficients: _____

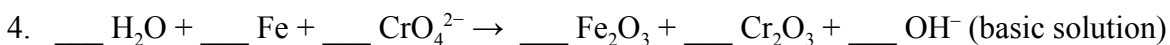


a. Type: _____

b. Sum of Coefficients: _____

Balance the following Redox reactions in the indicated solutions. (6 points each)

a. Sum of coefficients: _____



a. Sum of coefficients: _____

Name the following molecules. (1 point each)

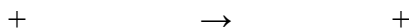
5. _____
6. _____
7. _____
8. _____
9. _____

Provide the molecular formulas for the following molecules. (1 point each)

10. _____
11. _____
12. _____
13. _____
14. _____

Answer the following questions.

15. (4)



16. ____C₃H₆ (g) + ____NO (g) → ____C₃H₃N (s) + ____H₂O (l) + ____N₂ (g) (5)(Tie-Breaker #4)

a. _____ (2)

b. _____ (1)

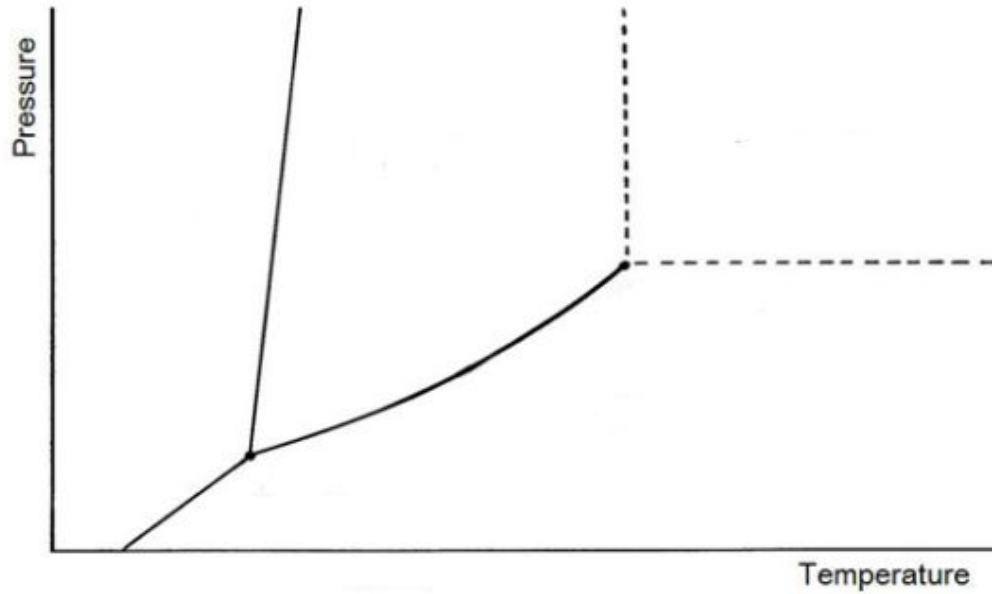
c. _____ (2)

17. (5)

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Physical Properties - Part 2 (57 points)

For questions 18, 19, 21, and 23, refer to the diagram below.

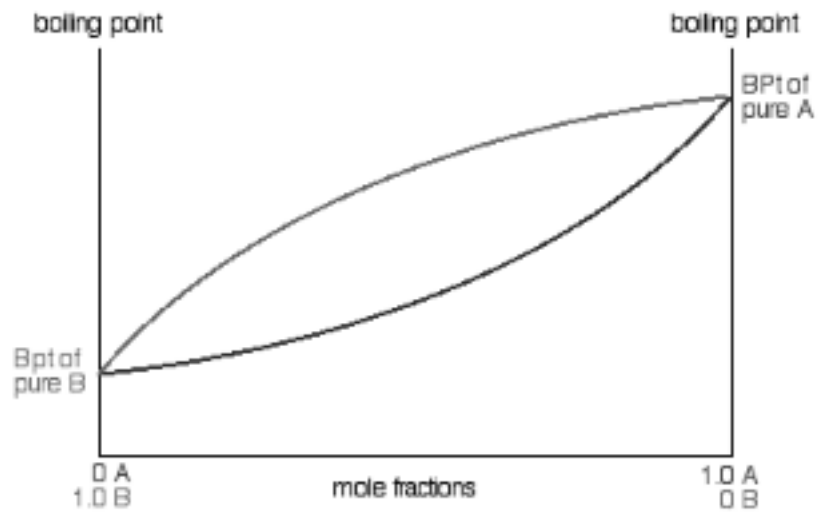


- 18. Label the phases in the diagram above. (3)
- 19. Label the phase changes in the diagram above. (6)
- 20. (2)

- 21. Label the region and point in the diagram above (2)
- 22. (1)

- 23. Label the point in the diagram above (1)
- 24. (5)(Tie-Breaker #1)

25. Label the curves in the diagram below (2)



26. _____; _____ (2)

27. (4)

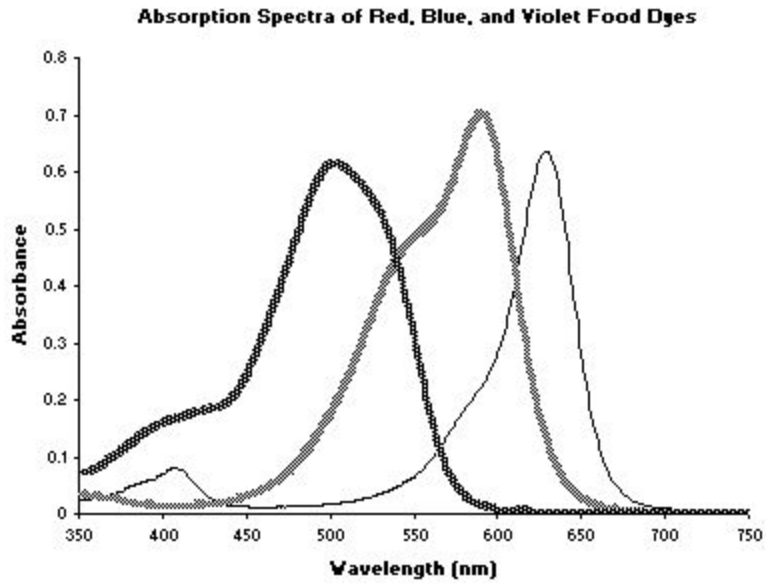
28. (6)(Tie-Breaker #3)

29. (1)

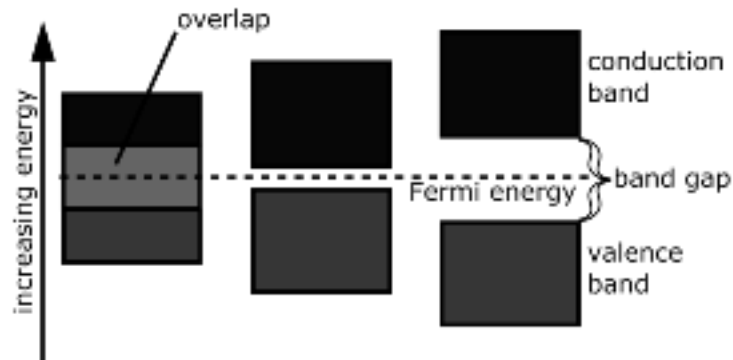
a. (3)

Points Earned on This Page: _____

30. Label the curves below (3)



31. Label the diagram below. (3)



32. (2)

Multiple Choice (1 point each)

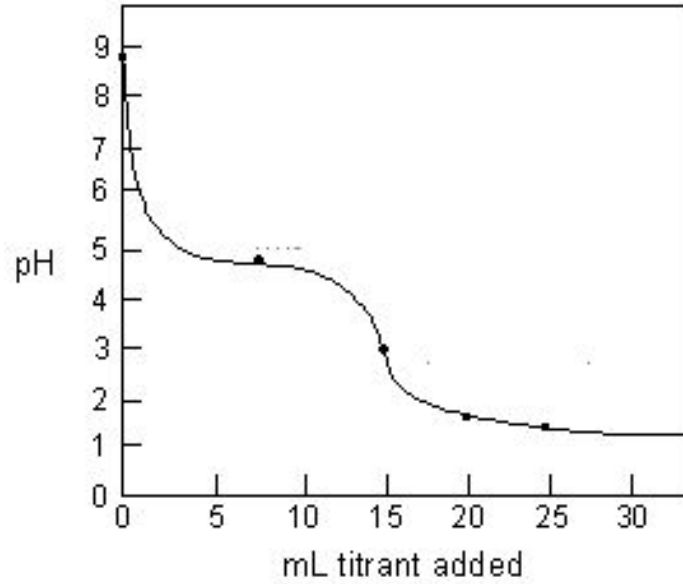
- | | |
|--------------|--------------|
| 33. ____ (1) | 39. ____ (1) |
| 34. ____ (1) | 40. ____ (1) |
| 35. ____ (1) | 41. ____ (1) |
| 36. ____ (1) | 42. ____ (1) |
| 37. ____ (1) | 43. ____ (1) |

Points Earned on This Page: _____

38. ____ (1)

Acid/Base Equilibrium - Part 3 (43 points)

44. Label the points on the diagram below. (2)



45. (1)

46. (4)

47. (1)

48. _____ (1)

49. (2)(Tie-Breaker #2)

Points Earned on This Page: _____

- 50. _____ (1)
- 51. _____; _____ (1)
- 52. (6)

- 53. _____ (1)
- 54. _____ (1)
- 55. _____ (1)
- 56. _____ (1)
- 57. _____ (1)

Determine if each of the following salts would produce a basic, acidic, or neutral solution in water. (1 point each)

- 58. _____ (1)
- 59. _____ (1)
- 60. _____ (1)
- 61. _____ (1)
- 62. _____ (1)
- 63. _____ (1)
- 64. _____ (1)
- 65. _____ (1)
- 66. _____ (1)
- 67. _____ (1)
- 68. _____ (1)

Multiple Choice (1 point each)

- 69. ____ (1)
- 70. ____ (1)
- 71. ____ (1)
- 72. ____ (1)
- 73. ____ (1)
- 74. ____ (1)

Points Earned on This Page: _____

75. ____ (1)

76. ____ (1)

Points Earned on This Page: _____

Lab Activity - Part 4 (49 points)**Analysis**

	Color Change (5 points each)	pH (>11 or <11) (5 points each)	Identity of Solution (10 points each)
Solution A			
Solution B			

77. _____ (2)

78. (2)

79. (4)

80. _____ (1)

Points Earned on This Page: _____