

Review for final_June 2017_chemistry

Answer Section

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Answer Section

MULTIPLE CHOICE

1. ANS: C	PTS: 1	DIF: I	OBJ: 6-1.1
2. ANS: D	PTS: 1	DIF: I	OBJ: 6-1.1
3. ANS: B	PTS: 1	DIF: I	OBJ: 6-1.1
4. ANS: A	PTS: 1	DIF: I	OBJ: 6-1.2
5. ANS: D	PTS: 1	DIF: I	OBJ: 6-1.2
6. ANS: D	PTS: 1	DIF: I	OBJ: 6-1.3
7. ANS: B	PTS: 1	DIF: I	OBJ: 6-1.3
8. ANS: A	PTS: 1	DIF: I	OBJ: 6-1.3
9. ANS: C	PTS: 1	DIF: I	OBJ: 6-1.4
10. ANS: B	PTS: 1	DIF: I	OBJ: 6-1.4
11. ANS: C	PTS: 1	DIF: I	OBJ: 6-1.4
12. ANS: C	PTS: 1	DIF: I	OBJ: 6-1.4
13. ANS: B	PTS: 1	DIF: III	OBJ: 6-1.5
14. ANS: A	PTS: 1	DIF: III	OBJ: 6-1.5
15. ANS: C	PTS: 1	DIF: II	OBJ: 6-1.5
16. ANS: C	PTS: 1	DIF: I	OBJ: 6-2.1
17. ANS: A	PTS: 1	DIF: I	OBJ: 6-2.1
18. ANS: B	PTS: 1	DIF: I	OBJ: 6-2.2
19. ANS: A	PTS: 1	DIF: I	OBJ: 6-2.2
20. ANS: B	PTS: 1	DIF: I	OBJ: 6-2.2
21. ANS: C	PTS: 1	DIF: II	OBJ: 6-2.3
22. ANS: A	PTS: 1	DIF: I	OBJ: 6-2.3
23. ANS: D	PTS: 1	DIF: I	OBJ: 6-2.3
24. ANS: B	PTS: 1	DIF: I	OBJ: 6-2.3
25. ANS: C	PTS: 1	DIF: I	OBJ: 6-2.4
26. ANS: A	PTS: 1	DIF: I	OBJ: 6-2.4
27. ANS: B	PTS: 1	DIF: I	OBJ: 6-2.5
28. ANS: C	PTS: 1	DIF: III	OBJ: 6-2.5
29. ANS: C	PTS: 1	DIF: III	OBJ: 6-2.5
30. ANS: B	PTS: 1	DIF: I	OBJ: 6-2.6
31. ANS: C	PTS: 1	DIF: I	OBJ: 6-3.1
32. ANS: D	PTS: 1	DIF: II	OBJ: 6-3.1
33. ANS: D	PTS: 1	DIF: I	OBJ: 6-3.2
34. ANS: C	PTS: 1	DIF: I	OBJ: 6-3.3
35. ANS: B	PTS: 1	DIF: II	OBJ: 6-3.3
36. ANS: A	PTS: 1	DIF: I	OBJ: 6-3.4
37. ANS: D	PTS: 1	DIF: I	OBJ: 6-4.1
38. ANS: D	PTS: 1	DIF: I	OBJ: 6-4.1

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39. ANS: A	PTS: 1	DIF: I	OBJ: 6-4.2
40. ANS: C	PTS: 1	DIF: I	OBJ: 6-4.3
41. ANS: C	PTS: 1	DIF: I	OBJ: 6-4.3
42. ANS: C	PTS: 1	DIF: II	OBJ: 6-5.4
43. ANS: C	PTS: 1	DIF: I	OBJ: 6-5.4
44. ANS: D	PTS: 1	DIF: II	OBJ: 6-5.4
45. ANS: D	PTS: 1	DIF: II	OBJ: 6-5.5
46. ANS: B	PTS: 1	DIF: I	OBJ: 7-1.1
47. ANS: D	PTS: 1	DIF: II	OBJ: 7-1.1
48. ANS: A	PTS: 1	DIF: III	OBJ: 7-1.2
49. ANS: A	PTS: 1	DIF: III	OBJ: 7-1.3
50. ANS: B	PTS: 1	DIF: II	OBJ: 7-1.4
51. ANS: B	PTS: 1	DIF: II	OBJ: 7-1.5
52. ANS: D	PTS: 1	DIF: II	OBJ: 7-1.6
53. ANS: B	PTS: 1	DIF: II	OBJ: 7-2.1
54. ANS: D	PTS: 1	DIF: II	OBJ: 7-2.1
55. ANS: A	PTS: 1	DIF: III	OBJ: 7-2.2
56. ANS: D	PTS: 1	DIF: III	OBJ: 7-2.2
57. ANS: D	PTS: 1	DIF: I	OBJ: 7-3.1
58. ANS: C	PTS: 1	DIF: III	OBJ: 7-3.2
59. ANS: A	PTS: 1	DIF: III	OBJ: 7-3.3
60. ANS: C	PTS: 1	DIF: III	OBJ: 7-3.4
61. ANS: B	PTS: 1	DIF: III	OBJ: 7-4.2
62. ANS: B	PTS: 1	DIF: II	OBJ: 7-4.3
63. ANS: A	PTS: 1	DIF: III	OBJ: 7-4.4
64. ANS: C	PTS: 1	DIF: I	OBJ: 8-1.1
65. ANS: B	PTS: 1	DIF: I	OBJ: 8-1.2
66. ANS: D	PTS: 1	DIF: I	OBJ: 8-1.2
67. ANS: C	PTS: 1	DIF: I	OBJ: 8-1.3
68. ANS: D	PTS: 1	DIF: III	OBJ: 8-1.4
69. ANS: D	PTS: 1	DIF: II	OBJ: 8-2.1
70. ANS: A	PTS: 1	DIF: II	OBJ: 8-2.2
71. ANS: D	PTS: 1	DIF: II	OBJ: 8-2.3
72. ANS: B	PTS: 1	DIF: I	OBJ: 8-2.4
73. ANS: B	PTS: 1	DIF: I	OBJ: 8-2.4
74. ANS: B	PTS: 1	DIF: I	OBJ: 8-3.1
75. ANS: A	PTS: 1	DIF: III	OBJ: 8-3.2
76. ANS: D	PTS: 1	DIF: I	OBJ: 9-1.1
77. ANS: A	PTS: 1	DIF: I	OBJ: 9-1.2
78. ANS: A	PTS: 1	DIF: II	OBJ: 9-1.2
79. ANS: B	PTS: 1	DIF: III	OBJ: 9-1.3
80. ANS: D	PTS: 1	DIF: III	OBJ: 9-2.1
81. ANS: D	PTS: 1	DIF: III	OBJ: 9-2.2
82. ANS: A	PTS: 1	DIF: III	OBJ: 9-2.3
83. ANS: C	PTS: 1	DIF: III	OBJ: 9-2.4

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84. ANS: C	PTS: 1	DIF: III	OBJ: 9-3.4
85. ANS: B	PTS: 1	DIF: II	OBJ: 9-3.1
86. ANS: D	PTS: 1	DIF: I	OBJ: 9-3.1

SHORT ANSWER

87. ANS:

Atoms form chemical bonds to establish a more-stable arrangement. As independent particles, they are at high potential energy. By bonding, they decrease their potential energy, thus becoming more stable.

PTS: 1 DIF: II OBJ: 6-1.2

88. ANS:

Atoms in a molecular compound share electrons to achieve stability. Atoms in an ionic compound gain or lose electrons to form ions.

PTS: 1 DIF: II OBJ: 6-3.1

PROBLEM

89. ANS:

83.98 g/mol AlF₃

$$26.98 \text{ g/mol Al} + (3 \times 19.00 \text{ g/mol F}) = 89.3 \text{ g/mol AlF}_3$$

PTS: 1 DIF: III OBJ: 7-3.1

90. ANS:

34.8 g NaOH

$$20.0 \text{ g Na} \times \frac{1 \text{ mol Na}}{22.99 \text{ g Na}} \times \frac{2 \text{ mol NaOH}}{2 \text{ mol Na}} \times \frac{40.00 \text{ g NaOH}}{1 \text{ mol NaOH}} = 34.8 \text{ g NaOH}$$

PTS: 1 DIF: III OBJ: 9-3.2