

Bonding Exam Practice  
Answer Key

1. 2

2. 2

3. 3

4. 4

5. 1

6. 3

7. 2

8. 3

9. 4

10. 1

11. 3

12. Sulfur

13. 4

14. 2

15. 1

16. 4

17. 1

18. 2

19. 3

20. 1

21. 1

22. 2

23. 4

24. 2

25. 1

26. 1

27. 2

8. 4

29. 3

30. 2

31. 3

32. 3

33. 1

34. 2

35. 4

36. 1

37. 2

38. 4

39. 3

40. 3

41. 3

42. 4

43. 1

44. 3

45. 2

46. 4

47. 3

48. 2

49. 3

50. 1

51. 4

52. 3

53. 1

54. 3

55. 1

56. 3

57. 4

58. 4

59. 4

60. 1

**Part 2**  
**Answer Key**

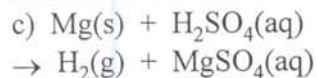


because of their opposite charge

symmetrical in shape and/or charge.

– Electrons are evenly distributed.

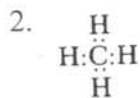
b) Hydrogen is a non-polar molecule and cannot dissolve in a polar substance like water.



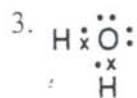
7. a) covalent b) The substance must not have any polarity since polar molecules or ionic substances would dissolve in polar water.

– All polar covalent dipoles cancel — no dipole moments.

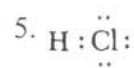
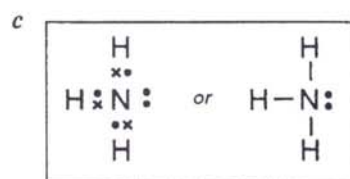
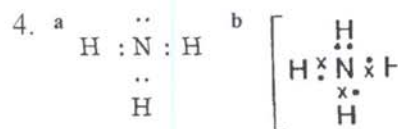
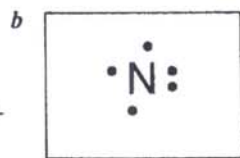
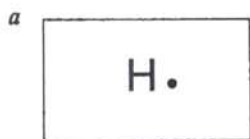
– no dipoles



c) It must be a molecular substance with very little attraction between it's molecules. These weak attractions makes the molecules easy to move apart and thus are soft.

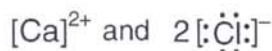
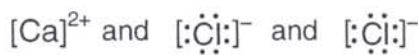


b) drawing  
c) Answers will vary: – lower F.P. or B.P. – unable to dissolve polar substances.



b) + next to H  
c) It's a polar molecule so it dissolves with the polar water molecule.

9. examples:



6. a) Ionic b) When ionic substances dissolve in water the substance breaks down into ions. Ions, being charged particles, can cause a current to flow. c) Ionic substances attract each other strongly

10. Examples:

– The molecule is