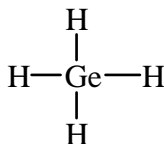


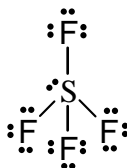
Names _____, _____, _____, _____

Given the correct Lewis structure below, answer the following questions. [5 pts]



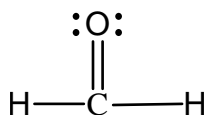
1. What is the **electron pair arrangement** of the central atom?
a) linear b) trigonal planar c) **tetrahedral** d) trigonal bipyramidal e) octahedral
2. What is the **molecular geometry (shape)** about the central atom?
a) trigonal pyramid b) square planar c) **tetrahedral** d) trigonal bipyramidal
e) bent
3. What is/are the **bond angle(s)** in the molecule?
a) 90° b) 120° c) **109°** d) 180° e) $90^\circ, 120^\circ$
4. What is the **polarity** of the molecule?
a) polar b) **nonpolar**
5. What **hybrid orbitals** are used by the central atom in bonding?
a) sp b) sp^2 c) sp^3 d) sp^3d e) sp^3d^2

Given the correct Lewis structure below, answer the following questions. [5 pts]



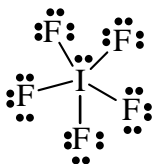
6. What is the **electron pair arrangement** of the central atom?
a) linear b) trigonal planar c) tetrahedral d) **trigonal bipyramidal** e) octahedral
7. What is the **molecular geometry (shape)** about the central atom?
a) **see-saw** b) square planar c) trigonal pyramid d) tetrahedral e) trigonal bipyramidal
8. What is/are the **bond angle(s)** in the molecule?
a) 120° b) $90^\circ, 120^\circ$ c) $90^\circ, 180^\circ$ d) **$90^\circ, 120^\circ, 180^\circ$** e) 109°
9. What is the **polarity** of the molecule?
a) **polar** b) nonpolar
10. What **hybrid orbitals** are used by the central atom in bonding?
a) sp b) sp^2 c) sp^3 d) **sp^3d** e) sp^3d^2

Given the correct Lewis structure below, answer the following questions. [5 pts]



11. What is the **electron pair arrangement** of the central atom?
a) linear **b) trigonal planar** c) tetrahedral d) trigonal bipyramidal e) octahedral
12. What is the **molecular geometry (shape)** about the central atom?
a) trigonal pyramid **b) trigonal planar** c) T-shaped d) tetrahedral e) bent
13. What is/are the **bond angle(s)** in the molecule?
a) $90^\circ, 180^\circ$ **b) 120°** c) 109° d) 180° e) $90^\circ, 120^\circ$
14. What is the **polarity** of the molecule?
a) polar b) nonpolar
15. What **hybrid orbitals** are used by the central atom in bonding?
a) sp **b) sp^2** c) sp^3 d) sp^3d e) sp^3d^2

Given the correct Lewis structure below, answer the following questions. [5 pts]



16. What is the **electron pair arrangement** of the central atom?
a) linear b) trigonal planar c) tetrahedral d) trigonal bipyramidal **e) octahedral**
 17. What is the **molecular geometry (shape)** about the central atom?
a) see-saw b) square planar **c) square pyramidal** d) trigonal bipyramidal e) octahedral
 18. What is/are the **bond angle(s)** in the molecule?
a) 90° b) 180° **c) $90^\circ, 180^\circ$** d) 120° e) 109°
 19. What is the **polarity** of the molecule?
a) polar b) nonpolar
 20. What **hybrid orbitals** are used by the central atom in bonding?
a) sp b) sp^2 c) sp^3 d) sp^3d **e) sp^3d^2**
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