

**Chemistry Department**

Quiz #9 Form A  **Chemistry 141** 17.05.2018

Student Name:\_\_\_\_\_\_\_\_\_\_\_\_ Student No:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Section\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Please read the questions carefully and choose the best fit answer:**

**1. Which of the following is sp3 hybridized?**

A) H2O B) NH3

C) CH4 D) All of the above

**2. Consider the compound PCl5, what type of hybridization P undergoes?**

A) sp3 B) sp3d

C) sp4 D) sp2d2

**3. What is the hybridization of the carbon atom in acetylene HC≡CH.**

A) sp B) sp3d

C) sp3 D) sp2

**4. What is the bond order in the species H2-1?**

A) 1 B) 0

C) ½ D) 1.5

**5. Which of the following has paramagnetic properties?**

A) C2 B) N2

C) O2 D) F2

**6. Which of the following does not exist?**

A) H2-1 B) H2

C) H2-2 D) H2+1

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**Chemistry Department**

Quiz #9 Form B  **Chemistry 141** 17.05.2018

Student Name:\_\_\_\_\_\_\_\_\_\_\_\_ Student No:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Section\_\_\_\_\_\_\_\_\_\_\_\_

**Please read the questions carefully and choose the best fit answer:**

**1. Which of the following is sp3 hybridized?**

A) H2S B) PH3

C) SiH4 D) All of the above

**2. Consider the compound SCl6, what type of hybridization S undergoes?**

A) sp3 B) sp3d

C) sp4 D) sp3d2

**3. What is the hybridization of the carbon atom in acetylene H2C=CH2.**

A) sp B) sp3d

C) sp3 D) sp2

**4. What is the bond order in the species H2-2?**

A) 1 B) 0

C) ½ D) 1.5

**5. Which of the following has paramagnetic properties?**

A) C2 B) B2

C) N2 D) F2

**6. Which of the following does not exist?**

A) H2-2 B) H2

C) H2-1 D) H2+1

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**Chemistry Department**

Quiz #9 Form C  **Chemistry 141** 17.05.2018

Student Name:\_\_\_\_\_\_\_\_\_\_\_\_ Student No:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Section\_\_\_\_\_\_\_\_\_\_\_\_

**Please read the questions carefully and choose the best fit answer:**

**1. Which of the following is sp2 hybridized?**

A) BF3 B) BH3

C) O2  D) All of the above

**2. Consider the compound SF6, what type of hybridization S undergoes?**

A) sp3 d2 B) sp3d

C) sp4 D) sp3

**3. What is the hybridization of the carbon atom in acetylene H3C-CH3.**

A) sp B) sp3d

C) sp3 D) sp2

**4. What is the bond order in the species H2?**

A) 1 B) 0

C) ½ D) 1.5

**5. Which of the following has diamagnetic properties?**

A) O2 B) B2

C) N2+1 D) F2

**6. Which of the following does not exist?**

A) H2+1 B) H2

C) H2-1 D) H2+2

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