Assignment-3

The due date for submitting this assignment has passed.
Due on 2020-02-19, 23:59 IST.

1. Fischer carbene contains, 
   - metal in high oxidation state. 
   - early transition metals. 
   - donor substituents on the carbene carbon. 
   - donor substituents on the carbene carbon. 
   - no, the answer is incorrect.
   - Accepted Answer: donor substituents on the carbene carbon.

2. Schrock carbene contains, 
   - metal in low oxidation state. 
   - late transition metals. 
   - donor substituents on the carbene carbon. 
   - hydrogen and alkyl substituents on the carbene carbon. 
   - no, the answer is incorrect.
   - Accepted Answer: hydrogen and alkyl substituents on the carbene carbon.

3. Choose the correct statement, 
   - Schrock carbene is nucleophilic at the carbene carbon atom. 
   - Fischer carbene contains late transition metals. 
   - Schrock carbene is electrophilic at the metal center. 
   - Schrock carbene contains an acceptor metal ligand. 
   - no, the answer is incorrect.
   - Accepted Answer: Schrock carbene is nucleophilic at the carbene carbon atom.

4. The metal of choice for Schrock carbene is/are 
   - Fe(II). 
   - Mn(II). 
   - Ti(IV). 
   - Ta(V). 
   - no, the answer is incorrect.
   - Accepted Answer: Ti(IV).

5. The metal of choice for Fischer carbene is/are 
   - Fe(II). 
   - W(VI). 
   - Ti(IV). 
   - Ta(V). 
   - no, the answer is incorrect.
   - Accepted Answer: Fe(II).

6. Choose the correct statement, 
   - Schrock carbene is electrophilic at the carbene carbon atom. 
   - Fischer carbene contains middle and late transition metals. 
   - Schrock carbene is electrophilic at the metal center. 
   - Schrock carbene contains an acceptor metal ligand. 
   - no, the answer is incorrect.
   - Accepted Answer: Fischer carbene contains middle and late transition metals.

7. Choose the correct statement, 
   - Schrock carbene is electrophilic at the carbene carbon atom. 
   - Fischer carbene contains early transition metals. 
   - Fischer carbene is nucleophilic at the metal center. 
   - Schrock carbene contains an acceptor metal ligand. 
   - no, the answer is incorrect.
   - Accepted Answer: Fischer carbene is nucleophilic at the metal center.

8. The choice of substituents on the carbene carbon atom for Fischer carbene is/are, 
   - alkoxy group. 
   - hydride group. 
   - amino group. 
   - allyl group. 
   - no, the answer is incorrect.
   - Accepted Answer: amino group.

9. The choice of substituents on the carbene carbon atom for Schrock carbene is/are, 
   - alkoxy group. 
   - hydride group. 
   - amino group. 
   - allyl group. 
   - no, the answer is incorrect.
   - Accepted Answer: alkoxy group.

10. Autotaxing (Södering reaction conditions) about where isotherms is/were 
    - metal carbene involvement. 
    - cyclobutane intermediate. 
    - concerted pathway. 
    - metalalkylsulfinate intermediate. 
    - no, the answer is incorrect.
    - Accepted Answer: cyclobutane intermediate.