Assignment 11

The due date for submitting this assignment has passed.

As per our records, you have not submitted this assignment.

1. The high-resolution proton NMR spectrum of 3,5-DiOH has
   - one structure for CH proton, if it has structures for Oi and Oii proton
   - three structures for Oi proton
   - one structure for Oii proton
   - CH proton is observed at a higher d-value than the Oi proton
   - Oi proton is observed at a higher d-value than the Oii proton
   No, the answer is incorrect.
   Accepted Answer:
   CH proton is observed at a higher d-value than the Oi proton, if it has structures for Oi and Oii proton.
   1 point

2. If we compare the high-resolution proton NMR spectrum of CH3(UJ) and CH3(CHO)
   - The number of fine structures of CH3 proton are the same in both the molecules
   - The number of fine structures of CH3 proton are different in both the molecules
   - There are no fine (chirality)
   - Both have special case exactly the same
   No, the answer is incorrect.
   Accepted Answer:
   No of the above
   1 point

3. A 4+ radical reaction mechanism can be obtained by
   - IR spectroscopy
   - NMR spectroscopy
   - UV-VIS spectroscopy
   - None of the above
   No, the answer is incorrect.
   Accepted Answer:
   None of the above
   1 point

4. The width of the ESR peak depends on:
   - relaxation time of the spin states
   - the strength of the magnetic field
   - the number of coupled electrons
   - the concentration of the sample
   No, the answer is incorrect.
   Accepted Answer:
   relaxation time of the spin states
   1 point

5. Effect of the following will show ESR signal
   - O3
   - OH
   - CH
   - all of the above
   No, the answer is incorrect.
   Accepted Answer:
   all of the above
   1 point

6. Which of the following is correct for ESR?
   - The frequency of ESR transition corresponds to microwave frequency
   - The frequency of ESR transition is negative
   - The frequency of ESR transition corresponds to microwave frequency
   - The frequency of ESR transition is negative
   No, the answer is incorrect.
   Accepted Answer:
   The frequency of ESR transition corresponds to microwave frequency
   1 point

7. Electron in which of the orbitals can interact with the nucleus
   - p orbital
   - d orbital
   - both is orbital and p orbital
   - d orbital
   No, the answer is incorrect.
   Accepted Answer:
   p orbital
   2 points

8. ESR spectrum of 3-CH(OH) radical has
   - hyperfine lines with intensity ratio 1:2:3:1
   - hyperfine lines with intensity ratio 1:2:1
   - hyperfine lines with intensity ratio 1:2:1:3
   - hyperfine lines with intensity ratio 1:1:1
   No, the answer is incorrect.
   Accepted Answer:
   hyperfine lines with intensity ratio 1:2:3:1
   1 point

9. The number of hyperfine lines in CH3(OH) (radical)
   - 10
   - 12
   - 10
   - 12
   No, the answer is incorrect.
   Accepted Answer:
   10
   1 point

10. The number of hyperfine lines in CH3(OH) (radical)
    - 10
    - 12
    - 10
    - 12
    No, the answer is incorrect.
    Accepted Answer:
    10
    1 point