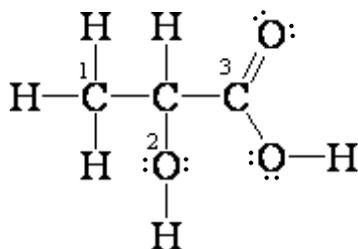


- The partial Lewis structure of lactic acid, the molecule that forms in muscle during exercise, is shown below. Complete the Lewis structure of lactic acid by drawing the non-bonded electron pairs around the relevant atoms.

Marks

7

2



Complete the following table.

2

Atom	Geometric arrangement of the groups around the atom	Hybridisation of atom
^1C	tetrahedral	sp^3
^2O	bent	sp^3
^3C	trigonal planar	sp^2

Name three types of intermolecular interactions expected of lactic acid.

3

- hydrogen bonding (alcohol and acid groups)**
- dipole-dipole interactions (alcohol and acid groups)**
- dispersion forces (all groups but the only interactions for methyl group)**