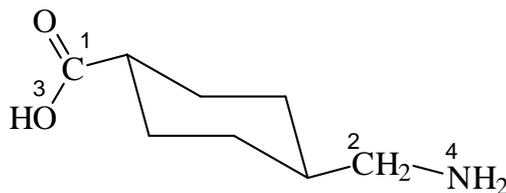


**Marks**  
**4**

- Tranexamic acid, *trans*-(4-aminomethyl)cyclohexanecarboxylic acid, is used for the treatment of severe haemorrhage in patients with haemophilia.



Provide the requested information for each of the indicated atoms in tranexamic acid.

| Atom | Geometric arrangement of the electron pairs around the atom | Hybridisation of the atom | Geometry/shape of $\sigma$ -bonding electron pairs around the atom |
|------|---|---------------------------|--|
| C-1  | <b>trigonal planar</b>                                      | <b>sp<sup>2</sup></b>     | <b>trigonal planar</b>   |
| C-2  | <b>tetrahedral</b>  | <b>sp<sup>3</sup></b>     | <b>tetrahedral</b>   |
| O-3  | <b>tetrahedral</b>  | <b>sp<sup>3</sup></b>     | <b>bent</b>  |
| N-4  | <b>tetrahedral</b>  | <b>sp<sup>3</sup></b>     | <b>trigonal pyramidal</b>  |