

## THE MELTING POINT OF SILICON DIOXIDE

Paper: 1C  
Question: 7(a)

### Example 1

Your mark

(a) Explain why silicon dioxide has a high melting point.

(2)

It has strong covalent bonds.  
Strong intermolecular forces of attraction between the silicon and oxygen bonds.

### Example 2

Your mark

(a) Explain why silicon dioxide has a high melting point.

(2)

It has a high melting point because it is a giant covalent lattice, which has strong covalent bonds which are very hard to break, so it requires a lot of energy.

### Example 3

Your mark

(a) Explain why silicon dioxide has a high melting point.

(2)

Because it has very strong intermolecular forces between the atoms, which require high amounts of energy to break or separate apart, thus has a high melting point.