Question 32 (5 marks)

Decaffeinated coffee is coffee from which the caffeine has been removed. The structure of caffeine is shown below.

In the decaffeination process, the solvent used should only dissolve caffeine so it can be removed, leaving compounds that are responsible for the flavours of coffee. Using your understanding of intermolecular forces, explain why dichloromethane,  $CH_2C\ell_2$ , can act as a solvent to remove caffeine.