

Chemistry

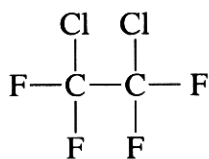
Section I – Part B (continued)

Marks

Question 25 (6 marks)

- (a) What is the systematic name of the CFC in the diagram?

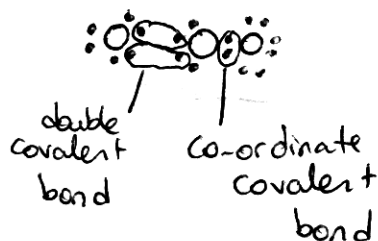
1



..... 1,2-dichloro-1,1,2,2-tetrafluoroethane

- (b) Identify the bonding within ozone, using a Lewis electron-dot diagram.

2



- (c) Discuss how CFCs damage the ozone layer, using relevant equations.

3

..... CFCs diffuse into the stratosphere where they are
 subjected to UV light which causes them to break
 of a bond releasing a free radical eg ~~Cl~~ Cl.....
 This free radical attaches to the O₃, thus breaking
 its bonds forming O₂ and O. This leads to the rapid
 destruction of the O₃ thus ozone layer, which is a
 protective shield for UV radiation.

