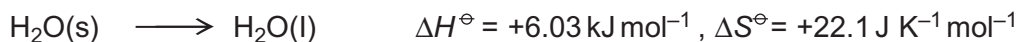


2 Consider the following process that represents the melting of ice.



2 (a) State the meaning of the symbol  $^\ominus$  in  $\Delta H^\ominus$ .

.....  
.....  
(1 mark)

2 (b) Use your knowledge of bonding to explain why  $\Delta H^\ominus$  is positive for this process.

.....  
.....  
.....  
(2 marks)

2 (c) Calculate the temperature at which  $\Delta G^\ominus = 0$  for this process. Show your working.

.....  
.....  
.....  
.....  
.....  
(3 marks)

2 (d) The freezing of water is an exothermic process. Give **one** reason why the temperature of a sample of water can stay at a constant value of  $0^\circ\text{C}$  when it freezes.

.....  
.....  
.....  
(1 mark)

2 (e) Pure ice can look pale blue when illuminated by white light. Suggest an explanation for this observation.

.....  
.....  
.....  
.....  
(2 marks)

