2012 AP® CHEMISTRY FREE-RESPONSE QUESTIONS

(e) The student then adds a small crystal of KI(s) to the test tube. The test tube is corked and inverted several

times. The $\rm\,I^-$ ion reacts with $\rm\,I_2$ to form the $\rm\,I_3^-$ ion, a linear species.

- (i) In the box below, draw the complete Lewis electron-dot diagram for the ${\rm I_3}^-$ ion.
 - (ii) In which layer, water or hexane, would the concentration of $\,\mathrm{I}_3^-$ be higher? Explain.