1(a) State what is meant by upthrust. [1]

(b) A ball of mass 180 g and density 800 kg m^{-3} is released from the bottom of a container containing a fluid of density 1100 kg m^{-3}. The ball eventually reaches terminal speed.

(i) Draw and label all the forces acting on the ball. [2]

(ii) Determine the value of the drag force due to the fluid when the ball is travelling at terminal speed. Show your working clearly. [3]

(c) Explain whether, when ice floating in a jug of water melts, there is any change in the level of the water. [3]