A solid sphere and a hollow sphere of the same material and of equal radii are heated to the same temperature.

(a) Both will emit equal amount of radiation per unit time in the biginning.

(b) Both will absorb equal amount of radiation from the surrounding in the biginning.

(c) The initial rate of cooling (dT/dt) will be the same for the two spheres.

(d) The two spheres will have equal temperatures at any instant.

Let the surrounding temperature be T_0.

By Stefan's - Boltzmann law, thermal radiation energy emitted per unit time by a black body of surface area A is $u = \sigma A T^4$

Also, energy absorbed per unit time is $u_0 = \sigma A T_0^4$

As the two spheres have equal radii ($\Rightarrow$ equal area) and equal temperature. Hence, their initial amount of emission and absorption will be equal.

Hence, option (a) and (b) are correct.