Additional material to know for second hourly exam

1) Implications of chaos for numerical weather prediction
2) Pressure coordinates; momentum equation in pressure coordinates; characteristics of pressure coordinates
3) Hydrostatic balance; hypsometric equation
4) Thickness: meaning, derivation, implications
5) Natural coordinates: how they are defined, mathematical representation of horizontal momentum equations
6) Special types of balanced flow: geostrophic, inertial, cyclostrophic and gradient, including force diagrams for each
7) Thermal wind: meaning, derivation, determination of type of thermal advection
8) Barotropic versus baroclinic: differences, seasonal/geographical variations
9) Continuity equation in pressure coordinates; kinematic method of determining vertical velocities; relationship between horizontal divergence and vertical motion
10) Calculating horizontal divergence
11) Divergence in natural coordinates