ATM 651 PE memorization Exam Item, fall 2020 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write the Primitive Equations in this grid, with one term per box:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E | F | G |
| 1. mass continuity |  |  |  |  |  |  |  |
| 2. horiz. F=ma  (vector form or u component) |  |  |  |  |  |  |  |
| 3. horiz. F=ma  (v if needed) |  |  |  |  |  |  |  |
| 4. hydrostatic |  |  |  |  |  |  |  |
| 5. First Law for T |  |  |  |  |  |  |  |

Which box contains each of the following:

\* the meridional advection of zonal momentum (also, write out this specific single advection term here, if you used a vector form in the boxes above. Mind the sign. )

\* the vertical advection of meridional momentum (also, write this specific single advection term here, if you used a vector form in the boxes above. Mind the sign.)

\* horizontal convergence of wind

\* the thickness of a pressure layer

\* radiative heating rate