CHAPTER 4: GLOBAL CLIMATES

FLOODS, DROUGHTS, AND FAMINES

I. GLOBAL PROCESSES DETERMINE WEATHER AND CLIMATE (88)

Weather -

Climate –

 A. Earth’s Atmosphere -

 Troposphere –

 Stratosphere –

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| Tropospheric Ozone | Sratospheric Ozone |

 B. Unequal Heating of Earth

 Albedo –

 C. Atmospheric Convection Currents

 1. Properties of Air –

 Saturation Point –

 Adiabatic Cooling –

 Adiabatic Heating –

 Latent Heat Release –

 2. Formation of Convection Currents

 Hadley Cells –

 Intertropical Convergence Zone (ITCZ) –

 Polar Cells –

 D. Earth’s Rotation and the Coriolis Effect –

 Coriolis Effect –

 E. Earth’s Tilt and the Seasons –

 F. Ocean Currents

 1. Gyres –

 2. Upwelling –

 3. Thermohaline Circulation –

 4. Heat Transport –

 5. El-Nino Southern Oscillation –

 G. Rain Shadows