GEOL 1610 Physical Geology Exam 2 Review

Key Concepts

Ch. 5

1. "Weathering" and Earth's external and internal processes.
2. Processes of mechanical weathering.
3. Processes of chemical weathering.
4. Controls on rates of weathering processes.
5. Soil and soil-forming processes.
6. The "soil profile" (pictured at top right) and soil taxonomy.
7. Soil erosion and controls on rates.

Ch. 6

1. Formation of sedimentary rocks: Diagenesis and lithification of sediment.
2. Detrital sedimentary rocks.
3. Chemical sedimentary rocks.
4. Further classification and interpretation of textures in sedimentary rocks.
5. Sedimentary environments and sedimentary structures.
6. Non-metallic mineral resources.
7. Energy from sedimentary rocks.

Ch. 7

1. "Metamorphism" and the agents that drive it.
2. Metamorphic textures.
3. Common metamorphic rocks.
4. Metamorphic environments.
5. Metamorphic zones and metamorphic "grade."

Ch. 8

1. "Mass wasting" and its role in landform development.
2. Triggers of mass wasting.
3. Classification of mass wasting processes.
4. Destructive mass wasting: Slumps, rockslides, debris flows, and earthflows.
5. Less obvious mass wasting: Creep and solifluction.

Ch. 9

1. The hydrologic cycle.
2. Streams and stream flow.
3. Transportation of sediment by streams.
4. Deposition of sediment by streams.
5. Types of stream valleys.
6. Drainage networks.
7. Floods and flood control.

Terms to Know

Metamorphic rocks develop from what?

Gneiss

Schist

Marble

Phylite

Slate

Quartzite

Types of metamorphism

Creep

slope failure

mass wasting

common detrital sedimentary rocks

types of slides

Detrital grains of some mineral(s) are extremely rare because?

Talus

Landslide triggers

Slumps, slides, falls

Mass wasting

Angle of repose

high-energy - low-energy environments

Slope stability

Mass movement is classified by what?

stream erosion

stream load

abrasive “tools”

meanders

Stream erosion

Cut banks/ Point bars

levees

deltas

ox bow lakes

drainage basins/divides

Stream velocity

Alluvium

V-shaped valley and no floodplain indicate what?

Evaporates

coal

gradient of a stream

mechanical or chemical weathering

lithification

soil particles

transportation/deposition

weathering of Earth’s materials

soils tend to be thin on steep slopes

soil horizons

pore spaces in soil

soil-forming processes

Bedrock

Limestone

Earth’s age

frost wedging

exfoliation?

grain size in sedimentary rocks related to the energy of the environments

sedimentary environments

foliated/non-foliated

aureoles

Typical Question

35. The interaction between the atmosphere, hydrosphere, and biosphere is a major contributor to _____.

a. the generation of magma
b. **weathering of Earth’s materials**
c. mountain building
d. metamorphism
e. plate movement