Geology 120

Exam 3 Review

Earthquakes

Explain the process that is used to locate the epicenter of an earthquake. What information is needed?

List and discuss the characteristics of the main types of earthquake waves.

Explain the difference between the Mercalli Scale and the Richter Scale.

ID: Earthquake wave types, Earthquake scales

Seafloor

Discuss at least 4 types of sea floor sediments. Explain the source of the sediments and in what part of the world's oceans they are found.

Explain several different ways that underwater canyons can form along the margins of the continental shelf.

Discuss differences between active continental margins and passive margins.

ID: Passive and active margins, seafloor topographic features

Structure

Complete this block diagram with all correct strike and dip symbols and identify the structure.

Discuss 5 factors that would promote ductile deformation instead of brittle deformation.

Explain the type of stress environment that is associated with each of 5 major fault types (stike-slip, normal, reverse, thrust, oblique).

ID: Strike and Dip, Fault type identifications, Anticlines and synclines

Streams

Explain how the nature of a stream typically changes from headwaters to mouth. Be sure to include variations in competency, capacity, and stream bed structure.

Explain 4 factors that can affect the velocity of a moving stream.

What rough proportion of sediments are carried by bed load, dissolved load, and suspended load. What factors do these proportions depend on?

ID: Drainage pattern types, Stream channel typology

Groundwater

List 4 types of potential sources of groundwater contamination and indicate whether the cause is anthropogenic or natural.

How does groundwater flow in the vicinity of a stream vary between a moist and dry environment?

What is the difference between a confined aquifer and an open aquifer?

ID: Perched water table, Ground water flow directions, Springs, Cones of depression