Increased vulnerability to landslide hazards may result from all of the following EXCEPT _____.

Student Response	Correct Answer
A. logging on unstable slopes	
B. deep infiltration of water	
C. clearcutting	
D. legislation	✓
E. urbanization	

Score: 1/1

For the valley shown in the diagram (right), the MOST LIKELY slope failure modes originating from the western (W) and eastern (E) slopes would be _____.

Student Response	Correct Answer
A. topples (W) and translational slides (E)	✓
B. spreads (W) and rockfalls (E)	
C. translational slides (W) and topples (E)	
D. rockfalls (W) and rotational slides (E)	
E. translational slides (W) and rotational slides (E)	

Score: 1/1

How does a debris slide differ from a debris flow? A debris slide _____.

Student Response	Correct Answer
A. does not contain as much water	
B. is composed of different material	
C. has a curved surface of failure	
D. moves more slowly than a debris flow	
E. is not confined to a channel	✓

Score: 1/1

Quick clays often lead to what type of landslide?

Student Response	Correct Answer
A. rotational slides	

B. translational slides

C. spreads ✓

D. flows

E. topples

Score: 1/1

Debris barriers and channels decrease damage from debris flows by all of the following EXCEPT _____.

Student Response	Correct Answer
A. boulder-lined channels decrease flow velocity	
B. concrete lined channels prevent more debris from being incorporated into the flow	
C. grates remove large debris from flow masses	
D. boulder and concrete-lined channels decrease erosion	
E. basins collect water which prevents flows from moving quickly	✓

Score: 1/1

How does a debris slide differ from a debris flow? A debris slide _____.

Student Response	Value
A. has a curved surface of failure	
B. is not confined to a channel	100%
C. moves more slowly than a debris flow	
D. does not contain as much water	
E. is composed of different material	

Score: 1/1

Which list correctly orders mass movements from slowest to fastest?

Student Response	Value
A. creep, slump, translational slide, rock fall	100%
B. slump, debris avalanche, rock fall, translational slide	
C. translational slide, slump, rock fall, rock avalanche	
D. slump, creep, loess flow, rock fall	
E. slump, debris flow, translational slide, debris avalanche	

Score: 1/1

Which statement is FALSE?

	Student Response	Value
A.	A rotational slide often leaves a crescent-shaped scarp.	
B.	Altering the way water drains naturally from steep slopes can have a significant effect on landslide frequency.	
C.	If the driving mass equals the resisting mass in a slope then a landslide will occur.	100%
D.	Hydrothermal alteration increases the frequency of landslides in volcanically active areas.	
E.	Increasing the pore pressure in a slope will decrease slope stability.	

Score: 1/1

Which of the following causes of landslides is LEAST important in British Columbia?

	Student Response	Value
A.	climate	
B.	slope angle	
C.	quick clays	100%
D.	removal of vegetation	
E.	overloading	

Score: 1/1

Which statement is TRUE?

	Student Response	Value
A.	Translational slides move in a rotational manner, accommodated by deformation of the weak soil.	
B.	Flows move downslope as a coherent mass.	
C.	Topples involve the backward rotation of a rock block, with the toe of the block moving outwards first.	
D.	Falls involve the rock detaching from a steep slope along a surface on which little shear displacement takes place.	100%
E.	Liquefaction is usually related to slow creep-like movements of a soil slope.	

High pore water pressure can cause landslides by _____.

	Student Response	Value

A. reducing friction between adjacent grains 100%

B. affecting the rate of infiltration

C. dissolving cement between adjacent grains

D. increasing water surface tension

E. decreasing the likelihood of liquefaction

Score: 1/1

Which is FALSE?

Student Response	Value
A. Increasing the normal stress across the sliding surface helps to increase the frictional strength.	
B. Infiltration of water and increasing pore pressures acts to reduce the shear strength of a rock slope.	
C. Faults and cracks weaken the shear strength of a rock slope.	
D. Shear stress is the component of gravity acting parallel to the sliding surface of a landslide.	
E. The main force acting on a slope is pore pressure and not gravity.	100%

Score: 1/1

Tensioning a rock anchor helps to stabilize a slope by _____.

Student Response	Value
A. reducing gravity	
B. preventing rain water from infiltrating into the slope and reducing the pore pressure	
C. breaking the rock, allowing it to be easily removed	
D. increasing the frictional strength	100%
E. increasing the tensile strength of the slope	

Score: 1/1

With regard to landslides, shear strength is _____.

Student Response	Value
A. the cohesion between grains in a rock or sediment sample	
B. the degree to which the surface tension of water holds material together	

C.	a combination of all the factors causing geologic materials to resist shear stress	100%
D.	a combination of composition, density, and electromagnetic attraction within geologic materials	
E.	slope steepness plus composition	

Score: 1/1

Which of the following is the BEST example of rapid erosion?

	Student Response	Value
A.	debris flows occurring on steep slopes due to deforestation and removal of the protective vegetation cover	
B.	liquefaction of a sensitive clay layer in a slope leading to its rapid failure	
C.	undercutting of a slope through water action leading to a series of retrogressing landslides	100%
D.	a series of rockfalls that occur due to changes in weather in winter and spring	
E.	wave action on highly resistant rock	

Score: 1/1