0

1.

"Pascal" is the unit for _____.

	Value	Correct Answer
A. pressure	100%	☑
B. energy		
C. power		
D. force		
E. density		

Score: 1/1

2.

Suppose that your refrigerator has mass 100 kg. It rests on frictionless feet to make it easier for you to slide it across the floor. If you move the fridge 3 m across your kitchen, the amount of work you do is _____.

Student Response	Value	Correct Answer
A. infinite		
B. 9800 N		
C. 100 N		
D. 300 J	0%	
E. Zero 100%		☑

Score: 0/1

3.

Over short-time scales (hours to days) under Earth's surface pressure, which of the following is considered NOT very fluid?

Student Response	Value	Correct Answer
A. air	0%	
B. Ice 100%		☑
C. water		
D. nitrogen		
E. lava		

Score: 0/1

4.

Which form of energy is related to the distance an object moves times the force moving it?

	Student Response	Value	Correct Answer
A.	work	100%	✓
B.	latent heat		
C.	potential energy		
D.	power		
E.	sensible heat		

Score: 1/1

5.

Most disaster scales are _____.

	Student Response	Value	Correct Answer
A.	Logarithmic 100%		✓
B.	trigonometric		
C.	algebraic		
D.	linear	0%	
E.	isometric		

Score: 0/1

6.

An object is ductile if _____.

	Student Response	Value	Correct Answer
A.	it deforms easily and remains deformed after the stress is removed	100%	✓
B.	it deforms easily but springs back after the stress is removed		
C.	it does not deform easily, and instead fractures if stress is increased		
D.	it fractures under low amounts of stress		
E.	it deforms under high sensible heat		

Score: 1/1

7.

What is scientifically wrong with this statement?

density = $1.2x10^3$

	Student Response	Value	Correct Answer
A.	it is missing the units	100%	✓
B.	density can't be as large as $1.2x10^3$		
C.	more significant digits are needed		
D.	for numbers in this range, it should be written as 1,200		
E.	for numbers in this range, it should be written as 1.2 kilo		

Score: 1/1

8.

Matter able to temporarily change its shape and to return to its original shape when the force is released is _____.

	Student Response	Value	Correct Answer
A.	elastic	100%	✓
B.	strain		
C.	plastic		
D.	ductile		
E.	brittle		

Score: 1/1

9.

Which statement is FALSE?

	Student Response	Value	Correct Answer
A.	Atoms arranged in a regular lattice structure form crystals.		
B.	Atoms with non-zero charge are called ions.		
C.	Gases are very fluid and very compressible.		
D.	Cleavage planes follow the strongest bonds in a crystal lattice.	100%	✓
E.	Magma has higher viscosity than water.		

Score: 1/1

10.

The count of all protons and neutrons in the nucleus of an atom is called the _____.

Student Response	Value	Correct Answer
A. atomic number		
B. atomic mass number	100%	✓
C. Avogadro's number		
D. covalence		
E. gluon number		

Score: 1/1

11.

A weather satellite is orbiting the Earth. It is at an altitude 850 km above the Earth's surface, and moves with speed 7.4 km/s. It has a mass of 2,200 kg. Because of its altitude, it has potential energy. Because of its speed, it has kinetic energy. Consider total energy defined as the sum of kinetic + potential energies. Which process would increase the total energy the most?

Student Response	Value	Correct Answer
A. doubling the altitude above the Earth's surface		
B. doubling the number of days it is in orbit		
C. doubling the Earth's gravitational acceleration		
D. doubling the speed of the satellite	100%	✓
E. doubling the size of the solar panels on the satellite		

Score: 1/1

12.

The distance between crest and neighboring crest of a wave is called:

Student Response	Value	Correct Answer
A. frequency		
B. Hertz		
C. period		
D. wavelength	100%	✓

E.	phase speed

Score: 1/1

13
.

What is wrong with the value "g = 9.8" for the acceleration due to gravity near the Earth's surface?

	Student Response	Value	Correct Answer
A.	The value 9.8 is an Imperial (British) measure, not a metric measure.		
B.	It does not enough significant digits after the decimal point.		
C.	It doesn't include any SI standard prefix like k for kilo, M for mega, etc.		
D.	It needs to be represented in scientific notation with a suffix "x 10^{-2}".		
E.	The units are missing.	100%	☑

Score: 1/1

14
.

A student with a mass of 50 kg walks 5 m up the steps for Biology class, another 5 m up to the next floor for Natural Disasters class and walks back down 10 m to the ground floor for lunch. At this point, the student's potential energy is:

	Student Response	Value	Correct Answer
A.	zero kg-m^2 / sec^2	100%	☑
B.	500 kg-m^2 / sec^2		
C.	1,000 kg-m^2 / sec^2		
D.	5,000 kg-m^2 / sec^2		
E.	10,000 kg-m^2 / sec^2		

Score: 1/1

15
.

Every year, more people are affected by natural disasters MOSTLY because _____.

	Student Response	Value	Correct Answer
A.	sea level is rising, putting large coastal cities at risk		
B.	natural disasters occur more frequently and of greater intensity		
C.	of global warming		

D.	the ozone hole allows more visible light to reach the earth's surface		
E.	as population increases, more people live in high risk areas	100%	☑

Score: 1/1

16.

The unit of energy is the _____.

	Student Response	Value	Correct Answer
A.	Newton	0%	
B.	Joule 100%		☑
C.	Watt		
D.	Pascal		
E.	Einstein		

Score: 0/1

17.

Which statement is TRUE?

	Student Response	Value	Correct Answer
A.	The Earth has unlimited carrying capacity.		
B.	Competition for resources will likely decrease in the near future.		
C.	Many disasters involve the gradual build up and sudden release of energy.	100%	☑
D.	Compared to developing countries, North America suffers more fatalities and more economic loss due to natural disasters.		
E.	Human infrastructure will become easier to maintain with greater human populations.		

Score: 1/1

18.

Which statement is TRUE?

	Student Response	Value	Correct Answer
A.	An object with mass ***m*** will have less potential energy on a mountaintop than at sea-level.		

B.	Events that happen more frequently have a greater return period.		
C.	Potential energy increases with the square of velocity.		
D.	An object with a high latent heat of vapourisation boils at a high temperature.		
E.	The change in sensible heat is proportional to the change in temperature.	100%	✓

Score: 1/1

19.

When twice as much liquid water evaporates in the air, the air _____.

	Student Response	Value	Correct Answer
A.	becomes 4 times cooler		
B.	becomes 2 times cooler	100%	✓
C.	doesn't change temperature		
D.	becomes 2 times warmer	0%	
E.	becomes 4 times warmer		

Score: 0/1

20.

Consider a 1000 kg boulder perched 5 meters above a roadway. Which of the following statements is FALSE?

	Student Response	Value	Correct Answer
A.	Pushing the boulder a horizontal distance of 5 meters with 200 newtons of force requires 1000 joules of work.		
B.	The force of gravity (or its weight) exerted by the boulder on the ground is 1000 kg.	100%	✓
C.	When the boulder is lifted 10 meters higher, its potential energy increases by about 100,000 kg-m2/sec2		
D.	If the boulder remains in place, it's kinetic energy will NOT change.		
E.	A similar boulder on the moon moving at 10 m/sec would have the same amount of kinetic energy as the boulder on Earth moving at the same speed.		

Score: 1/1

1.

If you double the distance that you push an object with a constant force, the amount of work _____.

Student Response	Value	Correct Answer
A. quarters		
B. halves	0%	
C. remains constant		
D. Doubles 100%		✓
E. quadruples		

Score: 0/1

2.

The frequency of a wave with a period of 2 seconds is _____ cycles/second.

Student Response	Value	Correct Answer
A. 1/4		
B. ½ 100%		✓
C. 1		
D. 2		
E. 4	0%	

Score: 0/1

3.

The common logarithm of 1,000,000 is:

Student Response	Value	Correct Answer
A. 2		
B. 3		
C. 4		
D. 5		
E. 6	100%	✓

Score: 1/1

4.

Which statement is FALSE?

Student Response	Value	Correct Answer

A.	The SI standard unit of time is the second.		
B.	The SI standard unit of distance is the meter.		
C.	The SI standard unit of mass is the gram. 100%		☑
D.	The prefix "milli" means 1/1000.	0%	
E.	The prefix "mega" means million.		

Score: 0/1

5.

The SI standard unit of distance is the _____.

Student Response		Value	Correct Answer
A.	micrometre		
B.	millimetre		
C.	centimetre		
D.	metre	100%	☑
E.	kilometre		

Score: 1/1

6.

The probable severity that a destructive event will occur multiplied by the event's likely impact on people and property is called _____.

Student Response		Value	Correct Answer
A.	a catastrophe		
B.	Risk 100%		☑
C.	a hazard		
D.	return period		
E.	a natural disaster	0%	

Score: 0/1

7.

Which is NOT a primary energy source that makes the Earth an active body?

Student Response		Value	Correct Answer
A.	electric power generated by the Earth's rotating magnetic field 100%		☑

	B. impact of extraterrestrial bodies such as asteroids and comets	0%	
	C. gravity		
	D. the Earth’s internal heat associated with natural radioactive decay		
	E. the sun		

Score: 0/1

8.

When atoms in molecules line up in a regular lattice, the result is called:

	Student Response	Value	Correct Answer
	A. crystal	100%	☑
	B. glass		
	C. metamorphic		
	D. ironic		
	E. mafic		

Score: 1/1

9.

Which statement is TRUE?

	Student Response	Value	Correct Answer
	A. Waves transport energy at the group speed.100%		☑
	B. Waves transport energy at the phase speed.		
	C. The height between ocean wave trough and crest is called wavelength.	0%	
	D. All waves are displacement waves.		
	E. Waves occur only at the Earth's surface.		

Score: 0/1

10.

The amount of heat that 1 kg of matter holds when it warms 1 degree Celsius is called _____.

	Student Response	Value	Correct Answer
	A. latent heat		
	B. relative heat		

C. absolute heat			
D. specific heat	100%	☑	

Score: 1/1

.

Of the following, which type of natural disaster has the longest time scale for energy build-up time compared to the time scale of energy release?

Student Response	Correct Answer
A. tsunami	
B. hurricane	
C. meteor impact	☑
D. landslide	
E. earthquake	

Score: 1/1

2.

What is/are the main source(s) of energy fueling the motion of tectonic plates?

Student Response	Correct Answer
A. the Sun	
B. radioactive decay and gravity 100%	☑
C. heat and convection	
D. hot magma in the mantle	
E. all of the above	

Score: 0/1

3.

Over short-time scales (hours to days) under Earth's surface pressure, which of the following is considered NOT very fluid?

Student Response	Correct Answer
A. air	
B. Ice 100%	☑
C. water	
D. nitrogen	

E. lava	

Score: 0/1

4.

Consider the following three phenomena:
1) a flood caused by a thunderstorm
2) a storm surge caused by a hurricane
3) a tsunami caused by an underwater earthquake

These are ALL directly associated with _____.

Student Response	Correct Answer
A. both the concentration and dilution of energy 100%	☑
B. shorter return periods for more-intense phenomena	
C. geothermal energy	
D. storms	
E. solar energy	

Score: 0/1

5.

The element that is the greatest component of the Earth's core is _____.

Student Response	Correct Answer
A. Oxygen	
B. Nitrogen	
C. Iron 100%	☑
D. Silicon	
E. hydrogen	

Score: 0/1

6.

In terms of population growth, the phrase "doubling time" refers to _____.

Student Response	Correct Answer
A. two times the annual growth rate	
B. linear growth rate	
C. 70 years	

D.	period of time for the population to increase by 2 percent	
E.	period of time required to double the present population 100%	✓

Score: 1/1

7.

The carrying capacity of Earth is _____.

Student Response		Correct Answer
A.	the amount of lithosphere (Earth's crust) that can be supported by the underlying mantle	
B.	the population that can be supported, given the quantity of food, energy, etc.	✓
C.	the amount of electric charge that can be stored between the atmosphere and the ground	
D.	is proportional to the surface area of the earth times the height of the tallest buildings	
E.	related to the pressure at the bottom of the atmosphere	

Score: 1/1

8.

Energy that is hidden when matter changes phase is called _____.

Student Response		Correct Answer
A.	sensible heat	
B.	latent heat 100%	✓
C.	work	
D.	kinetic energy	
E.	potential energy	

Score: 0/1

9.

Which disaster is related to the dilution of energy?

Student Response		Correct Answer
1.	earthquakes	
2.	thunderstorms	
3.	volcanoes	
4.	hurricanes	
5.	Floods 100%	✓

Score: 0/1

10.

The snowstorm that hit the Lower Mainland in early January 2004 was about as severe as the storm that occurred in 1996 (8 years ago). The estimated Return Period for this category of storm is about:

Student Response	Correct Answer
A. 0.5 year	
B. 2 years	
C. 4 years 100%	☑
D. 8 years	
E. 16 years	

Score: 0/1

1.

Some natural hazards are good.

Student Response	Value	Correct Answer
True	100%	True

Score: 1/1

2.

To help save lives, the textbook recommends these five aspects of hazard management should be carried out in chronological order. Select the aspects in each dropdown box to place them in their correct order:
1) [-----]
2) [-----]
3) [-----]
4) [-----]
5) [-----]

Student Response	Value	Correct Answer
To help save lives, the textbook recommends these five aspects of hazard management should be carried out in chronological order. Select the aspects in each dropdown box to place them in their correct order: 1) [determination of likely locations] 2) [estimation of probability of	0.0%	To help save lives, the textbook recommends these fi of hazard management should be carried out in chror order. Select the aspects in each dropdown box to pla their correct order: 1) [determination of likely locations] 2) [estimation of probability of occurrence] 3) [survey of precursor events] 4) [forecasting the disaster]

occurrence] 3) [survey of precursor events] 4) [warning the public] 5) [forecasting the disaster]	5) [warning the public] (100.0%)

Score: 0/1

3.

Choose the BEST phrase that completes the sentence below:
Losses from natural disasters are increasing mostly because _____.

	Student Response	Value	Correct Answer
	A. of global warming		
	B. disasters are happening more frequently		
	C. modern disasters are more intense than previous disasters		
☑	D. scientists can now measure their intensity more accurately	0%	
	E. population and the number of structures are increasing 100%		☑
	F. inflation makes the cost of everything more expensive		

Score: 0/1

4.

Which one of the following poses a GREATER risk?

	Student Response	Value	Correct Answer
	A. A hazard that happens once per decade, causing $100,000 damage.		
	B. A hazard that happens once per year, causing $10,000 damage.		
☑	C. A hazard that happens once per month, causing $1,000 damage.	100%	☑

Score: 1/1

DAVIDS

1.

The three greatest chemical elemental components of the Earth's crust are _____.

Student Response	Value	Co

A. nitrogen, oxygen, hydrogen			
B. oxygen, silicon, aluminum		100%	✓
C. silicon, iron, calcium			
D. aluminum, carbon, sodium			
E. silicon, magnesium, iron			

Score: 1/1

2.

When atoms in molecules line up in a regular lattice, the result is called:

Student Response	Value	Correct An
A. crystal	100%	✓
B. glass		
C. metamorphic		
D. ironic		
E. mafic		

Score: 1/1

3.

The unit of energy is the _____.

Student Response	Value	Correct An
A. Newton		

B.	Joule	100%	✓
C.	Watt		
D.	Pascal		
E.	Einstein		

Score: 1/1

4.

The most common element in the Earth's crust is _____.

	Student Response	Value	Correct An
A.	oxygen	100%	✓
B.	silicon		
C.	iron		
D.	nitrogen		
E.	hydrogen		

Score: 1/1

5.

Over the past several hundred years, the world growth rate curve is _____.

	Student Response	Value	Correct An
A.	linear		
B.	quadratic		

C. flat		
D. sinusoidal		
E. exponential	100%	✓

Score: 1/1

6.

Which statement is TRUE? The most common element in the _____.

Student Response	Value	Correct An
A. Earth's core is silicon		
B. Earth's crust is silicon		
C. Earth's crust is iron		
D. atmosphere is oxygen		
E. Earth's crust is oxygen	100%	✓

Score: 1/1

7.

Suppose that your refrigerator has mass 100 kg. It rests on frictionless feet to make it easier for you to slide it across the floor. If you move the fridge 3 m across your kitchen, the amount of work you do is _____.

Student Response	Value	Correct An
A. 100 N		
B. infinite		
C. Zero 100%		✓

D. 300 J		0%
E. 9800 N		

Score: 0/1

8.

Of the water on Earth, most is found in _____.

Student Response	Value	Correct An
1. the oceans	100%	✓
2. rivers and lakes		
3. the atmosphere		
4. glaciers and ice caps		
5. the ground		

Score: 1/1

9.

Over short-time scales (hours to days) under Earth's surface pressure, which of the following is considered NOT very fluid?

Student Response		Value	Correct An
A. air		0%	
B. ice	100%		✓
C. water			
D. nitrogen			

E.	lava

Score: 0/1

10.

Which statement is FALSE?

	Student Response	Value	Correct An
A.	Natural disasters occur when diffuse sources of energy are concentrated and then released into a compact area		
B.	During natural disasters, energy in one form is transformed into another or many other forms.		
C.	Solar energy is the ultimate source of energy fueling thunderstorms.	0%	
D.	Earth's geological history consists of a series of disastrous events separated by brief periods of calm. 100%		✓
E.	Natural disasters occur when energy builds up over a long period of time, then released suddenly and violently.		

Score: 0/1

11.

The element that is the greatest component of the Earth's core is _____.

	Student Response	Value	Correct An
A.	oxygen		
B.	nitrogen		
C.	iron	100%	✓

D. silicon	
E. hydrogen	

Score: 1/1

12.

The Earth and oceans are layered because _____.

Student Response	Value	Correct An
A. dense materials tend to occupy more space		
B. less-dense materials float on top of denser materials	100%	✓
C. plants and animals survive optimally in warm temperatures		
D. gravitational attraction is greatest when 2 bodies are farthest apart		
E. heavier materials are more common in Earth's crust		

Score: 1/1

13.

Most disaster scales are logarithmic; namely, each increase by 1 of the scale value corresponds to roughly a ten-fold increase in the strength of the disaster. The main reason for using this type of disaster scale is _____.

Student Response	Value	Correct An
A. it is more confusing to the general public, thus strengthening the egos of scientists		
B. the more intense disasters happen less frequently	0%	
C. most disasters vary by many orders of magnitude 100%		✓

D.	the risk (i.e., threat to life) is related to both the disaster strength and its return period
E.	the logarithmic values are smaller and more compact, thus easier to store in computer-file archives

Score: 0/1

14.

"Joule" is the unit for _____.

Student Response	Value	Correct An
A. pressure		
B. energy	100%	✓
C. power		
D. force		
E. density		

Score: 1/1

15.

Which is an example of an element?

Student Response	Value	Correct An
A. table salt		
B. water		
C. carbon dioxide		

D.	nitrogen	100%	✓
E.	limestone		

Score: 1/1

16.

Which statement is FALSE?

Student Response		Value	Correct An
A.	A unit of force is the Newton.		
B.	A unit of pressure is the kiloPascal.		
C.	A unit of stress is the Pascal.		
D.	The SI standard unit of time is the second.		
E.	The SI standard unit of mass is the gram.	100%	✓

Score: 1/1

17.

Which form of energy is related to the distance an object moves times the force moving it?

Student Response		Value	Correct An
A.	work	100%	✓
B.	latent heat		
C.	potential energy		

D.	power
E.	sensible heat

Score: 1/1

18.

The System International (SI) standard units of distance, time and mass are _____.

	Student Response	Value	Correct An
A.	meter, second, and kilogram	100%	✓
B.	kilometer, hour, and gram		
C.	centimeter, second, and gram		
D.	yard, minute, and pound		
E.	kilometer, minute, and kilogram		

Score: 1/1

19.

Consider the wave graphed below. If the phase speed of the wave were to remain constant at 4 m/s, but the wavelength were to double, then the wave frequency would _____.

	Student Response	Value	Correct An
A.	halve	100%	✓
B.	quadruple		

C. double	
D. quarter	
E. not change	

Score: 1/1

20.

Which of the following disaster scales applies to impacts from space?

Student Response	Value	Correct An
A. Richter		
B. Torino	100%	✓
C. Fujita		
D. Saffir-Simpson		
E. Modified Mercalli		

Score: 1/1

1.

The energy released in disaster X is two orders of magnitude greater than that released in disaster Y. This means that X has _____ as much energy as Y.

Student Response	Value	Correct Ans
A. half		

B. 10 times	
C. twice	
D. log(2) times	
E. 100 times	☑

Score: 0/1

2.

Energy that is hidden when matter changes phase is called _____.

Student Response	Value	Correct Ans
A. sensible heat		
B. latent heat		☑
C. work		
D. kinetic energy		
E. potential energy		

Score: 0/1

3.

Which statement is FALSE?

Student Response	Value	Correct Ans
A. The SI standard unit of time is the second.		
B. The SI standard unit of distance is the meter.		

C. The SI standard unit of mass is the gram.	☑
D. The prefix "milli" means 1/1000.	
E. The prefix "mega" means million.	

Score: 0/1

4.

The phases of matter are _____.

Student Response	Value	Correct Ans
A. AC and DC		
B. electron, proton and neutron		
C. AM and FM		
D. solid, liquid and gas		☑
E. ion, radical and isotope		

Score: 0/1

5.

Which statement is FALSE?

Student Response	Value	Correct Ans
A. A unit of force is the Newton.		
B. A unit of pressure is the kiloPascal.		
C. A unit of stress is the Pascal.		

D. The SI standard unit of time is the second.	
E. The SI standard unit of mass is the gram.	☑

Score: 0/1

6.

Consider Object A with a mass of 10 kg and Object B with a mass of 20 kg, both moving at a speed of 1 m / sec. Which of the following statements is TRUE?

Student Response	Value	Correct Ans
A. The kinetic energy of Object B is equal to the kinetic energy of Object A.		
B. The kinetic energy of Object B is 2X the kinetic energy of Object A.		☑
C. The kinetic energy of Object A is 2X the kinetic energy of Object B.		
D. The kinetic energy of Object A is 5 kg-m / sec.		
E. The kinetic energy of Object B is 20 kg-m^2 / sec^2.		

Score: 0/1

7.

Over the past several hundred years, the world growth rate curve is _____.

Student Response	Value	Correct Ans
A. linear		
B. quadratic		
C. flat		
D. sinusoidal		

E. exponential	☑

Score: 0/1

8.

The MOST abundant element in the Earth's atmosphere is _____.

Student Response	Value	Correct Ans
A. oxygen		
B. silicon		
C. hydrogen		
D. iron		
E. nitrogen		☑

Score: 0/1

9.

The count of all protons and neutrons in the nucleus of an atom is called the _____.

Student Response	Value	Correct Ans
A. atomic number		
B. atomic mass number		☑
C. Avogadro's number		
D. covalence		
E. gluon number		

Score: 0/1

10.

The snowstorm that hit the Lower Mainland in early January 2004 was about as severe as the storm that occurred in 1996 (8 years ago). The estimated Return Period for this category of storm is about:

Student Response	Value	Correct Ans
A. 0.5 year		
B. 2 years		
C. 4 years		☑
D. 8 years		
E. 16 years		

Score: 0/1

1.

BC Hydro recommends that you conserve electrical energy. If you had a 100 W incandescent (normal) light bulb that you normally leave turned on 12 hours/day, how would you save the MOST energy?

Student Response	Correct An
A. Turn it off half the time.	
B. Replace it with a 50 W incandescent bulb.	
C. Replace it with a 50 W compact fluorescent bulb.	
D. Replace it with a 50 W LED (light-emitting diode) bulb	
E. All save the same amount of energy.	☑

Score: 0/1

2.

Of the water on Earth, most is found in _____.

Student Response	Correct An
1. the oceans	✓
2. rivers and lakes	
3. the atmosphere	
4. glaciers and ice caps	
5. the ground	

Score: 1/1

3.

Which statement is TRUE regarding wave energy?

Student Response	Correct An
A. Wave energy has units of Watts.	
B. Wave energy always travels at the group velocity.	✓
C. Wave energy always travels at the phase velocity.	
D. Compression waves don't possess wave energy, while displacement waves do.	
E. Wave energy has units of Newtons.	

Score: 1/1

4.

A billion meters can be abbreviated as _____.

Student Response	Correct An
A. mm	
B. cm	
C. km	
D. Mm	
E. Gm	✓

Score: 1/1

5.

Which statement is TRUE? The most common element in the _____.

Student Response	Correct An
A. Earth’s core is silicon	
B. Earth’s crust is silicon	
C. Earth’s crust is iron	
D. atmosphere is oxygen	
E. Earth’s crust is oxygen	✓

Score: 0/1

6.

Which statement is FALSE?

Student Response	Correct An
A. Atoms arranged in a regular lattice structure form crystals.	
B. Atoms with non-zero charge are called ions.	
C. Gases are very fluid and very compressible.	
D. Cleavage planes follow the strongest bonds in a crystal lattice.	☑
E. Magma has higher viscosity than water.	

Score: 0/1

7.

Which is an example of an element?

Student Response	Correct An
A. table salt	
B. water	
C. carbon dioxide	
D. nitrogen	☑
E. limestone	

Score: 1/1

8.

If the mass of a moving object doubles, its kinetic energy changes by what factor?

Student Response	Correct An
A. 1/4	
B. 1/2	
C. 1	
D. 2	✓
E. 4	

Score: 0/1

9.

The probable severity that a destructive event will occur multiplied by the event's likely impact on people and property is called _____.

Student Response	Correct An
A. risk	✓
B. a hazard	
C. a catastrophe	
D. return period	
E. a natural disaster	

Score: 1/1

10.

Which of the following disaster scales applies to impacts from space?

Student Response	Correct An
A. Richter	
B. Torino	✓
C. Fujita	
D. Saffir-Simpson	
E. Modified Mercalli	

Score: 1/1

1.

Some natural hazards are good.

Student Response	Value	Correct Answer
True	100%	True

Score: 1/1

2.

To help save lives, the textbook recommends these five aspects of hazard management should be carried out in chronological order. Select the aspects in each dropdown box to place them in their correct order:
1) [-----]
2) [-----]
3) [-----]
4) [-----]
5) [-----]

Student Response	Value	Correct Answer
To help save lives, the textbook recommends these five aspects of hazard management should be carried out in chronological order. Select the aspects in each dropdown box to	100.0%	To help save lives, the textbook recommends these five asp management should be carried out in chronological order. S aspects in each dropdown box to place them in their correc 1) [determination of likely locations]

place them in their correct order: 1) [determination of likely locations] 2) [estimation of probability of occurrence] 3) [survey of precursor events] 4) [forecasting the disaster] 5) [warning the public]	2) [estimation of probability of occurrence] 3) [survey of precursor events] 4) [forecasting the disaster] 5) [warning the public] (100.0%)

Score: 1/1

3.

Choose the BEST phrase that completes the sentence below:
Losses from natural disasters are increasing mostly because _____.

Student Response	Value	Correct An
A. of global warming		
B. disasters are happening more frequently		
C. modern disasters are more intense than previous disasters		
D. scientists can now measure their intensity more accurately		
E. population and the number of structures are increasing	100%	✓
F. inflation makes the cost of everything more expensive		

Score: 1/1

4.

Which one of the following poses a GREATER risk?

Student Response	Value	Correct An
A. A hazard that happens once per decade, causing $100,000 damage.		

B.	A hazard that happens once per year, causing $10,000 damage.		
C.	A hazard that happens once per month, causing $1,000 damage.	100%	✓

Score: 1/1

FRAGILE SYSTEMS

1) An object that breaks when stresses are applied is called _____.

	Student Response	Value	Correct Answer
A.	brittle	100%	✓
B.	ductile		
C.	plastic		
D.	elastic		
E.	malleable		

Score: 1/1

2.

In developed countries such as Canada where population levels are increasing, we can expect economic losses due to natural disasters to _____.

	Student Response	Value	Correct Answer
A.	remain near zero		
B.	increase significantly	100%	✓
C.	remain nearly constant		
D.	decrease exponentially		
E.	remain steady at about $80 billion per year		

Score: 1/1

3.

Consider the following three phenomena:
1) a flood caused by a thunderstorm
2) a storm surge caused by a hurricane
3) a tsunami caused by an underwater earthquake

These are ALL directly associated with _____.

	Student Response	Value	Correct Answer
A.	geothermal energy		
B.	solar energy		
C.	both the concentration and dilution of energy	100%	✓

D.	storms		
E.	shorter return periods for more-intense phenomena		

Score: 1/1

4.

Which statement is FALSE?

	Student Response	Value	Correct Answer
A.	Natural disasters occur when diffuse sources of energy are concentrated and then released into a compact area		
B.	During natural disasters, energy in one form is transformed into another or many other forms.		
C.	Solar energy is the ultimate source of energy fueling thunderstorms.	0%	
D.	Earth's geological history consists of a series of disastrous events separated by brief periods of calm.		✓
E.	Natural disasters occur when energy builds up over a long period of time, then released suddenly and violently.		

Score: 0/1

5.

The layering of less-dense materials on top of more-dense materials is called _____.

	Student Response	Value	Correct Answer
A.	layerification		
B.	calcification		
C.	ionization		
D.	fracturization		
E.	stratification	100%	✓

Score: 1/1

6.

Which of the following is TRUE?

	Student Response	Value	Correct Answer
A.	Gases are the least compressible compared to liquids and solids.		
B.	Fluids with low viscosity such as air resist flow more that those with high viscosity such as magma.		
C.	Heat of sublimation is released when solids become gases.		
D.	The ability of solids to permanently change shape or deform when forced is called plastic.	100%	✓
E.	Liquids and gases can change their shape easily, thus are not fluids.		

Score: 1/1

7.

The top layer of the earth is called the_____.

	Student Response	Value	Correct Answer
A.	mesosphere		
B.	asthenosphere		
C.	mantle		
D.	core		
E.	crust	100%	✓

Score: 1/1

8.

The logarithm of 10,000 is:

	Student Response	Value	Correct Answer
A.	1		
B.	4	100%	✓
C.	5		
D.	100		
E.	1000		

Score: 1/1

9.

Two objects (A and B) of the same mass receive the same amount of heat, but the increase in temperature of object A is less than that of object B. The parameter that describes how the temperature of an object changes with heat input per unit mass is called _____.

	Student Response	Value	Correct Answer
A.	stress		
B.	strain		
C.	the latent heat constant	0%	
D.	specific heat		✓
E.	density		

Score: 0/1

10.

A teragram is equal to _____.

	Student Response	Value	Correct Answer
A.	one millionth of a gram (10^{-6})		

B.	one thousandth of a gram (10^{-3})		
C.	ten grams (10^{1})		
D.	one thousand grams (10^{3})		
E.	one trillion grams (10^{12})	100%	✓

Score: 1/1

11.

When water vapour condenses, latent heat _____.

	Student Response	Value	Correct Answer
A.	is known as the latent heat of fusion	0%	
B.	is released as sensible heat		✓
C.	doesn't change		
D.	is absorbed from sensible heat		
E.	is known as the latent heat of sublimation		

Score: 0/1

12.

Which statement is TRUE regarding wave energy?

	Student Response	Value	Correct Answer
A.	Compression waves don't possess wave energy, while displacement waves do.		
B.	Wave energy always travels at the phase velocity.		
C.	Wave energy has units of Watts.		
D.	Wave energy has units of Newtons.		
E.	Wave energy always travels at the group velocity.	100%	✓

Score: 1/1

13.

Which statement is TRUE?

	Student Response	Value	Correct Answer
A.	There is no limit to the population that the world can hold.		
B.	As population grows, larger percentages of the population can be protected from natural disasters.		
C.	The Earth is a fragile system.	0%	
D.	Savage competition for resources will diminish as population grows.		
E.	As population increases, the cost of loss of transportation, communication, and utilities due to natural disasters will increase		✓

	significantly.

Score: 0/1

14.

Which component of the Earth system is the most fragile and vulnerable to natural disasters?

	Student Response	Value	Correct Answer
A.	human population	100%	✓
B.	volcanoes and landslides		
C.	the atmosphere and oceans		
D.	the Earth's continents		
E.	transportation and utilities		

Score: 1/1

15.

The common logarithm of 1,000,000 is:

	Student Response	Value	Correct Answer
A.	2		
B.	3		
C.	4		
D.	5		
E.	6	100%	✓

Score: 1/1

16.

The speed at which wave energy propagates is called the _____ speed.

	Student Response	Value	Correct Answer
A.	phase		
B.	translation		
C.	flow		
D.	kinetic		
E.	group	100%	✓

Score: 1/1

17.

Most disaster scales are logarithmic; namely, each increase by 1 of the scale value corresponds to roughly a ten-fold increase in the strength of the disaster. The main reason for using this type of disaster scale is _____.

	Student Response	Value	Correct Answer

A.	most disasters vary by many orders of magnitude	100%	✓
B.	the logarithmic values are smaller and more compact, thus easier to store in computer-file archives		
C.	it is more confusing to the general public, thus strengthening the egos of scientists		
D.	the more intense disasters happen less frequently		
E.	the risk (i.e., threat to life) is related to both the disaster strength and its return period		

Score: 1/1

18.

An object behaves elastically under strain if it_____.

	Student Response	Value	Correct Answer
A.	deforms easily and takes on a new shape after the strain is removed		
B.	deforms easily and springs back to its original shape after the strain is removed	100%	✓
C.	is difficult to tear but easy to cut with scissors or a knife		
D.	breaks easily when at a cool temperature, but flows under high temperatures.		
E.	resists deformation and releases heat when the strain is removed		

Score: 1/1

19.

Which statement is FALSE?

	Student Response	Value	Correct Answer
A.	A sustainable society is resilient to natural hazards.	0%	
B.	Volcanoes, landslides, and earthquakes are natural disasters to the Earth.		✓
C.	Energy can cause things to move or change.		
D.	The unit of force is the Newton.		
E.	Sensible heat is heat that you can feel.		

Score: 0/1

20.

Which statement is FALSE?

	Student Response	Value	Correct Answer
A.	High intensity natural disasters occur less frequently than low intensity natural disasters.	0%	
B.	Disaster intensity is often quantified using logarithmic scales.		

C.	The Saffir-Simpson scale for hurricanes is based on measuring damage.	☑
D.	Tornadoes of intensity 2 on the Fujita scale are more common than tornadoes of intensity 3.	
E.	In Canada, the highest wind speeds typically occur in coastal areas.	

Score: 0/1

1.

Layers form in the Earth, ocean, and atmosphere because _____.

	Student Response	Value	Correct Answer
A.	heavier objects sink relative to less heavy ones		
B.	there is greater pressure acting on the lower layers		
C.	of the stress between layers that tends to cause them to deform		
D.	the acceleration of gravity decreases with height		
☑ E.	less dense objects float relative to more dense ones	100%	☑

Score: 1/1

2.

In developed countries _____ will be increasingly destroyed due to natural hazards.

	Student Response	Value	Correct Answer
A.	lives		
B.	farm animals		
C.	money		
☑ D.	infrastructure	100%	☑
E.	property		

Score: 1/1

3.

The speed at which wave energy propagates is called the _____ speed.

	Student Response	Value	Correct Answer
A.	phase		
☑ B.	translation	0%	
C.	flow		
D.	kinetic		
E.	group		☑

Score: 0/1

4.

The International System (SI) standard unit for time is:

	Student Response	Value	Correct Answer
A.	second	100%	✓
B.	hour		
C.	day		
D.	year		
E.	minute		

Score: 1/1

5.

Over short-time scales (hours to days) under Earth's surface pressure, which of the following is considered NOT very fluid?

	Student Response	Value	Correct Answer
A.	air		
B.	ice		✓
C.	water		
D.	nitrogen		
E.	lava	0%	

Score: 0/1

6.

Which statement is TRUE?

	Student Response	Value	Correct Answer
A.	Population is self-limiting. Namely, the death rate increases when the carrying capacity is exceeded.	100%	✓
B.	The maximum population that can be carried by the earth is fixed.		
C.	The survivability rate of people in natural disasters will increase as population grows, due to better social networks.		
D.	Earth's carrying capacity increases as more people occupy our planet.		
E.	You have almost no control over your own chances of surviving a natural disaster.		

Score: 1/1

7.

Most disaster scales are logarithmic; namely, each increase by 1 of the scale value corresponds to roughly a ten-fold increase in the strength of the disaster. The main reason for using this type of disaster scale is _____.

	Student Response	Value	Correct Answer

A.	the logarithmic values are smaller and more compact, thus easier to store in computer-file archives	0%	
B.	it is more confusing to the general public, thus strengthening the egos of scientists		
C.	the more intense disasters happen less frequently		
D.	most disasters vary by many orders of magnitude		✓
E.	the risk (i.e., threat to life) is related to both the disaster strength and its return period		

Score: 0/1

8.

Consider Object A with a mass of 10 kg and Object B with a mass of 20 kg, both moving at a speed of 1 m / sec. Which of the following statements is TRUE?

	Student Response	Value	Correct Answer
A.	The kinetic energy of Object B is equal to the kinetic energy of Object A.		
B.	The kinetic energy of Object B is 2X the kinetic energy of Object A.	100%	✓
C.	The kinetic energy of Object A is 2X the kinetic energy of Object B.		
D.	The kinetic energy of Object A is 5 kg-m / sec.		
E.	The kinetic energy of Object B is 20 kg-m^2 / sec^2.		

Score: 1/1

9.

Carbon-12 and carbon-14 are isotopes of each other because they both contain the same number of _____.

	Student Response	Value	Correct Answer
A.	protons		✓
B.	carbon atoms		
C.	neutrons	0%	
D.	positrons		
E.	not enough information to answer		

Score: 0/1

10.

Which statement is FALSE?

	Student Response	Value	Correct Answer
A.	A sustainable society is resilient to natural hazards.	0%	
B.	Volcanoes, landslides, and earthquakes are natural disasters to the Earth.		✓

C.	Energy can cause things to move or change.
D.	The unit of force is the Newton.
E.	Sensible heat is heat that you can feel.

Energy that is hidden when matter changes phase is called _____.

	Student Response	Correct Answer
A.	sensible heat	
B.	latent heat	✓
C.	work	
D.	kinetic energy	
E.	potential energy	

Score: 1/1

2.

The SI standard unit of distance is the _____.

	Student Response	Correct Answer
A.	micrometre	
B.	millimetre	
C.	centimetre	
D.	metre	✓
E.	kilometre	

Score: 1/1

3.

When water vapour condenses, latent heat _____.

	Student Response	Correct Answer
A.	is released as sensible heat	✓
B.	doesn't change	
C.	is known as the latent heat of fusion	
D.	is absorbed from sensible heat	
E.	is known as the latent heat of sublimation	

Score: 1/1

4.

An object is plastic if _____.

	Student Response	Correct Answer
A.	it is soft and you can see through it	
B.	it deforms easily and remains deformed after the stress is removed	☑
C.	it deforms easily but springs back after the stress is removed	
D.	it does not deform easily, and instead fractures if stress is increased	
E.	it says you can recycle it on the bottom of the package	

Score: 0/1

5.

A unit of pressure is the _____.

	Student Response	Correct Answer
A.	Newton	
B.	Joule	
C.	Watt	
D.	Pascal	☑
E.	Einstein	

Score: 1/1

6.

Why are many disaster intensities quantified using a logarithmic scale?

	Student Response	Correct Answer
A.	More intense disasters happen less frequently than weaker disasters.	
B.	Earthquakes are more powerful than tornadoes.	
C.	Scientists like to confuse the public by using complicated disaster scales.	
D.	Disaster intensities vary by many orders of magnitude.	☑
E.	Many disasters are cyclic.	

Score: 1/1

7.

The count of all protons and neutrons in the nucleus of an atom is called the _____.

	Student Response	Correct Answer
A.	atomic number	
B.	atomic mass number	✓
C.	Avogadro's number	
D.	covalence	
E.	gluon number	

Score: 1/1

8.

What process can transfer both matter and energy?

	Student Response	Correct Answer
A.	turbulence	✓
B.	compression waves	
C.	displacement waves	
D.	group velocity	
E.	phase velocity	

Score: 0/1

9.

The unit of energy is the _____.

	Student Response	Correct Answer
A.	Newton	
B.	Joule	✓
C.	Watt	
D.	Pascal	
E.	Einstein	

Score: 1/1

10.

Which of the following disaster scales applies to impacts from space?

	Student Response	Correct Answer

A.	Richter	
B.	Torino	✓
C.	Fujita	
D.	Saffir-Simpson	
E.	Modified Mercalli	

The figure below shows that as time increases, the quantity Q _____.

	Student Response	Value	Correct Answer
A.	increases by equal amounts		
B.	increases by increasing amounts	100%	✓
C.	decreases by smaller amounts		
D.	decreases by increasing amounts		
E.	(not enough info to answer)		

Score: 1/1

2.

In the earth's core, the most common element is _____.

	Student Response	Value	Correct Answer
A.	iron (Fe)	100%	✓
B.	nickel (Ni)		
C.	silicon (Si)		
D.	oxygen (O)		
E.	aluminum (Al)		

Score: 1/1

3.

The population that can be sustainably supported in a given domain is known as _____.

	Student Response	Value	Correct Answer
A.	Canada		

B.	overpopulation		
C.	peak oil boomers		
D.	carrying capacity	100%	✓
E.	resource controlled population		

Score: 1/1

4.

Objects of low density relative to the fluid they are immersed in will generally _____.

	Student Response	Value	Correct Answer
A.	become stratified		
B.	rise due to buoyancy	100%	✓
C.	sink due to buoyancy		
D.	become unstratified		
E.	(not enough info to answer)		

Score: 1/1

5.

On the Moon gravity is weaker than on Earth. Hence on the Moon, relative to the Earth and ignoring friction and drag _____.

	Student Response	Value	Correct Answer
A.	potential energy does not depend on gravity		
B.	less work is required to lift a 20 kg object a distance of 10 m	100%	✓
C.	if you push a 20 kg object horizontally, it would accelerate faster		
D.	less energy is required to warm a 10 kg granite rock by 20 °C		
E.	a 10 kg object falling 50 m would be moving faster just before it hits the ground		

Score: 1/1

6.

Which statement is FALSE?

	Student Response	Value	Correct Answer
A.	Hazards can be anticipated through scientific analysis.		
B.	Risk analysis is an important element of understanding the effects of hazardous processes.		
C.	Linkages exist among different natural hazards and between hazards and the physical environment.		
D.	Damage from natural disasters is decreasing.	100%	✓
E.	Damage and loss of life from natural disasters can be minimized.		

Score: 1/1

7.

Stress is most LIKE _____.

	Student Response	Value	Correct Answer
A.	strain		
B.	power		
C.	energy		
D.	pressure	100%	✓
E.	gravity		

Score: 1/1

8.

Which disaster is MOST RISKY?

	Student Response	Value	Correct Answer
A.	event happens once a decade, killing 4000 people		
B.	event happens once a year, killing 300 people		
C.	event happens once a month, killing 25 people		
D.	event happens once a week, killing 10 people		
E.	event happens once a day, killing 2 people	100%	✓

Score: 1/1

9.

The scale of Disaster X is three orders of magnitude greater than that for Disaster Y. Comparing these disaster magnitudes, _____.

	Student Response	Value	Correct Answer
A.	magnitude of Disaster X = 3 × magnitude of Disaster Y		
B.	magnitude of Disaster Y = 3 × magnitude of Disaster X		
C.	magnitude of Disaster X = 3 + magnitude of Disaster Y		
D.	magnitude of Disaster X = log(3) × magnitude of Disaster Y		
E.	magnitude of Disaster X = 1000 × magnitude of Disaster Y	100%	✓

Score: 1/1

10.

In the plot below, the return period for hurricanes of intensity 4 on the Saffir-Simpson Scale is roughly _____ years.

	Student Response	Value	Correct Answer
A.	1		
B.	2.5		
C.	7	100%	✓
D.	40		
E.	700		

Score: 1/1

11.

Pressure and strain are similar because both _____.

	Student Response	Value	Correct Answer
A.	have units of Pascals	0%	
B.	describe the deformation of an object		

C.	apply only to gases		
D.	are measures of energy		
E.	are related to earthquakes		☑

Score: 0/1

12.

A disaster of magnitude 8 has a return period of 4 years. During 40 years of record, this disaster was observed how many times?

	Student Response	Value	Correct Answer
A.	2		
B.	4		
C.	5		
D.	8		
E.	10	100%	☑

Score: 1/1

13.

If a large earthquake happened in the Pacific Ocean just west of British Columbia, the disaster(s) you would expect in greater Vancouver is/are mostly related to _____.

	Student Response	Value	Correct Answer
A.	tsunami		
B.	shaking and tsunami		
C.	shaking, tsunami, and landslides	100%	☑
D.	shaking, tsunami, landslides, and volcanoes		
E.	shaking, tsunami, landslides, volcanoes, and storms		

Score: 1/1

14.

If a major disaster such as a big earthquake actually happens in Vancouver, which is likely to be TRUE?

	Student Response	Value	Correct Answer
A.	The government will be ready for action, and will come to your aid quickly.		

B.	You will be able to rely on your neighbors to help you through the worst of it.		
C.	News coverage will be thorough and complete, so you can make sound decisions on what to do.		
D.	There will be a lot of confusion and insufficient information to make appropriate decisions.	100%	✓
E.	There is only a slim chance that fires will sweep through the city.		

Score: 1/1

15.

Which disaster type results from a DILUTION of energy?

	Student Response	Value	Correct Answer
A.	earthquakes	0%	
B.	volcanic eruption		
C.	landslides		
D.	storms		
E.	floods		✓

Score: 0/1

16.

On a GLOBAL SCALE, if population increases, then there is a greater chance that _____.

	Student Response	Value	Correct Answer
A.	humans will create more natural hazards		
B.	the frequency of natural hazards will decrease		
C.	the frequency of natural hazards will not change much, but fewer structures will be destroyed due to better zoning and construction standards	0%	
D.	the frequency of natural hazards will increase		
E.	natural hazards will cause increasing fatalities in spite of		✓

	better predictions and warnings

Score: 0/1

17.

For the Earth's surface, ocean, and atmosphere, the ONE element that ranks within the top 2 most common elements is _____.

	Student Response	Value	Correct Answer
A.	hydrogen (H)		
B.	helium (He)		
C.	nitrogen (N)		
D.	silicon (Si)		
E.	oxygen (O)	100%	✓

Score: 1/1

18.

To evaporate water vapour from your skin, sensible heat _____.

	Student Response	Value	Correct Answer
A.	is changed into latent heat		✓
B.	makes you feel warmer	0%	
C.	decreases the evaporation rate		
D.	is produced from latent heat		
E.	remains constant		

Score: 0/1

19.

A liquid is relatively _____.

	Student Response	Value	Correct Answer
A.	compressible and runny (low viscosity)	0%	
B.	compressible and thick (high viscosity)		
C.	incompressible, regardless of the viscosity		✓
D.	incompressible and solid		

E.	compressible and solid

Score: 0/1

20.

Which aspect of recovery from a disaster could benefit from the knowledge you gain in this course?

	Student Response	Value	Correct Answer
A.	surviving the disaster while it is happening, and aiding search and rescue		✓
B.	restoration of major services and return of functionality of society		
C.	reconstruction to pre-disaster levels		
D.	reconstruction to levels improved beyond the pre-disaster levels	0%	
E.	prevention of future disasters		

Score: 0/1

The figure below shows that as time increases, the quantity Q _____.

	Student Response	Value	Correct Answer
A.	increases by equal amounts		
B.	increases by increasing amounts	100%	✓
C.	decreases by smaller amounts		
D.	decreases by increasing amounts		
E.	(not enough info to answer)		

Score: 1/1

2.

In the earth's core, the most common element is _____.

	Student Response	Value	Correct Answer
A.	iron (Fe)	100%	✓
B.	nickel (Ni)		
C.	silicon (Si)		
D.	oxygen (O)		
E.	aluminum (Al)		

Score: 1/1

3.

The population that can be sustainably supported in a given domain is known as _____.

	Student Response	Value	Correct Answer
A.	Canada		
B.	overpopulation		
C.	peak oil boomers		
D.	carrying capacity	100%	✓
E.	resource controlled population		

Score: 1/1

4.

Objects of low density relative to the fluid they are immersed in will generally _____.

	Student Response	Value	Correct Answer
A.	become stratified		
B.	rise due to buoyancy	100%	✓
C.	sink due to buoyancy		
D.	become unstratified		
E.	(not enough info to answer)		

Score: 1/1

5.

On the Moon gravity is weaker than on Earth. Hence on the Moon, relative to the Earth and ignoring friction and drag _____.

	Student Response	Value	Correct Answer
A	potential energy does not		

	depend on gravity		
B.	less work is required to lift a 20 kg object a distance of 10 m	100%	✓
C.	if you push a 20 kg object horizontally, it would accelerate faster		
D.	less energy is required to warm a 10 kg granite rock by 20 °C		
E.	a 10 kg object falling 50 m would be moving faster just before it hits the ground		

Score: 1/1

6.

Which statement is FALSE?

	Student Response	Value	Correct Answer
A.	Hazards can be anticipated through scientific analysis.		
B.	Risk analysis is an important element of understanding the effects of hazardous processes.		
C.	Linkages exist among different natural hazards and between hazards and the physical environment.		
D.	Damage from natural disasters is decreasing.	100%	✓
E.	Damage and loss of life from natural disasters can be minimized.		

Score: 1/1

7.

Stress is most LIKE _____.

	Student Response	Value	Correct Answer
A.	strain		
B.	power		
C.	energy		
D.	pressure	100%	✓
E.	gravity		

Score: 1/1

8.

Which disaster is MOST RISKY?

	Student Response	Value	Correct Answer
A.	event happens once a decade, killing 4000 people		
B.	event happens once a year, killing 300 people		
C.	event happens once a month, killing 25 people		
D.	event happens once a week, killing 10 people		
E.	event happens once a day, killing 2 people	100%	✓

Score: 1/1

9.

The scale of Disaster X is three orders of magnitude greater than that for Disaster Y. Comparing these disaster magnitudes, _____.

	Student Response	Value	Correct Answer
A.	magnitude of Disaster X = 3 × magnitude of Disaster Y		
B.	magnitude of Disaster Y = 3 × magnitude of Disaster X		
C.	magnitude of Disaster X = 3 + magnitude of Disaster Y		
D.	magnitude of Disaster X = log(3) × magnitude of Disaster Y		
E.	magnitude of Disaster X = 1000 × magnitude of Disaster Y	100%	✓

Score: 1/1

10.

In the plot below, the return period for hurricanes of intensity 4 on the Saffir-Simpson Scale is roughly _____ years.

	Student Response	Value	Correct Answer

A.	1		
B.	2.5		
C.	7	100%	✓
D.	40		
E.	700		

Score: 1/1

11.

Pressure and strain are similar because both _____.

	Student Response	Value	Correct Answer
A.	have units of Pascals	0%	
B.	describe the deformation of an object		
C.	apply only to gases		
D.	are measures of energy		
E.	are related to earthquakes		✓

Score: 0/1

12.

A disaster of magnitude 8 has a return period of 4 years. During 40 years of record, this disaster was observed how many times?

	Student Response	Value	Correct Answer
A.	2		
B.	4		
C.	5		
D.	8		
E.	10	100%	✓

Score: 1/1

13.

If a large earthquake happened in the Pacific Ocean just west of British Columbia, the disaster(s) you would expect in greater Vancouver is/are mostly related to _____.

	Student Response	Value	Correct Answer
A.	tsunami		

B.	shaking and tsunami		
C.	shaking, tsunami, and landslides	100%	✓
D.	shaking, tsunami, landslides, and volcanoes		
E.	shaking, tsunami, landslides, volcanoes, and storms		

Score: 1/1

14.

If a major disaster such as a big earthquake actually happens in Vancouver, which is likely to be TRUE?

	Student Response	Value	Correct Answer
A.	The government will be ready for action, and will come to your aid quickly.		
B.	You will be able to rely on your neighbors to help you through the worst of it.		
C.	News coverage will be thorough and complete, so you can make sound decisions on what to do.		
D.	There will be a lot of confusion and insufficient information to make appropriate decisions.	100%	✓
E.	There is only a slim chance that fires will sweep through the city.		

Score: 1/1

15.

Which disaster type results from a DILUTION of energy?

	Student Response	Value	Correct Answer
A.	earthquakes	0%	
B.	volcanic eruption		
C.	landslides		
D.	storms		
E.	floods		✓

Score: 0/1

16.

On a GLOBAL SCALE, if population increases, then there is a greater chance that _____.

	Student Response	Value	Correct Answer
A.	humans will create more natural hazards		
B.	the frequency of natural hazards will decrease		
C.	the frequency of natural hazards will not change much, but fewer structures will be destroyed due to better zoning and construction standards	0%	
D.	the frequency of natural hazards will increase		
E.	natural hazards will cause increasing fatalities in spite of better predictions and warnings		✓

Score: 0/1

17.

For the Earth's surface, ocean, and atmosphere, the ONE element that ranks within the top 2 most common elements is _____.

	Student Response	Value	Correct Answer
A.	hydrogen (H)		
B.	helium (He)		
C.	nitrogen (N)		
D.	silicon (Si)		
E.	oxygen (O)	100%	✓

Score: 1/1

18.

To evaporate water vapour from your skin, sensible heat _____.

	Student Response	Value	Correct Answer
A.	is changed into latent heat		✓
B.	makes you feel warmer	0%	
C.	decreases the evaporation rate		

D.	is produced from latent heat	
E.	remains constant	

Score: 0/1

19.

A liquid is relatively _____.

	Student Response	Value	Correct Answer
A.	compressible and runny (low viscosity)	0%	
B.	compressible and thick (high viscosity)		
C.	incompressible, regardless of the viscosity		✓
D.	incompressible and solid		
E.	compressible and solid		

Score: 0/1

20.

Which aspect of recovery from a disaster could benefit from the knowledge you gain in this course?

	Student Response	Value	Correct Answer
A.	surviving the disaster while it is happening, and aiding search and rescue		✓
B.	restoration of major services and return of functionality of society		
C.	reconstruction to pre-disaster levels		
D.	reconstruction to levels improved beyond the pre-disaster levels	0%	
E.	prevention of future disasters		

Score: 0/1