

2109_INTRODUCTION TO BIOLOGY [2109_BIOL_1010_04]

Course Content

Review Test Submission: Ecology Exam

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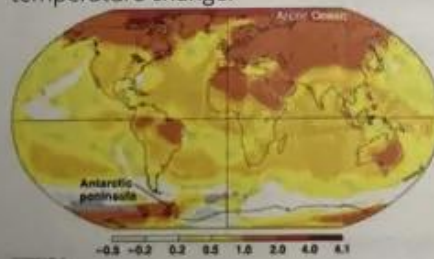
User [REDACTED]
Course 2109_INTRODUCTION TO BIOLOGY [2109_BIOL_1010_04]
Test Ecology Exam
Started 11/18/21 10:00 AM
Submitted 11/18/21 10:28 AM
Status Completed
Attempt Score 81 out of 100 points
Time Elapsed 28 minutes out of 1 hour and 15 minutes
Results Displayed All Answers, Submitted Answers, Correct Answers

Question 1

2 out of 2 points

The following map shows the more recent increase in average temperature in °C for 2005-2015 relative to 1951-1980. Note the color scale as it relates to temperature increase.

Based on these data, what biomes do you think are most affected by rising global temperature change.

Selected Answer: ☒ Taiga and Tundra

Answers:

- ☐ Thorn Scrub & Woodland
- ☐ Temperate Grassland
- ☐ Rainforest
- ☐ Subtropical Desert
- ☒ Taiga and Tundra

Question 2

0 out of 1 points

Ultimately a parasite will kill its host.

Selected Answer: ☒ True

Answers: ☐ True

☒ False

Question 3

2 out of 2 points

The Cane Toad

Selected Answer: ☒ all statements are false

Answers:

was accidentally introduced into Australia and caused major ecosystem alterations

was considered a success story for biological control because it eliminated the beetles eating the sugar cane crops

☐ all statements are true

☒ all statements are false

population decreased once the beetle food source was exhausted

Question 4

2 out of 2 points

Latitudinal gradients impact species diversity in the following way(s):

Selected Answer: ☒ at higher latitudes there is lower species diversity

Answer:

Answers:

at lower latitudes they impact bird but not mammal species diversity

at higher latitudes they impact terrestrial but not aquatic organisms

☒ at higher latitudes there is lower species diversity

☐ none of the answers are true

Question 5

2 out of 2 points

Which of the following is **not** a major threat to biodiversity

Selected Answer: ☒ tidal waves

Answers:

habitat destruction

pollution

overexploitation

☒ tidal waves

Question 6

Question 5

Which of the following is **not** a major threat to biodiversity

Selected Answer: ☒ tidal waves
habitat destruction

Answers:

pollution

overexploitation

☒ tidal waves

Question 6

According to scientific consensus the **primary** cause of recent global warming is:

Selected Answer: ☒ the production of greenhouse gases by humans

Answers: ☒ the production of greenhouse gases by humans
volcanic eruptions releasing aerosols into the atmosphere
variation in the sun's energy output
fragmentation of land

Question 7

Intermediate disturbance hypothesis is that

Selected Answer: ☒ moderate disturbances have beneficial effects on biodiversity

Answers: ☒ moderate disturbances have beneficial effects on biodiversity
moderate disturbances lead to mutualism
moderate disturbances have negative effects on the ecosystem
moderate disturbances break predator prey relationships

Question 8

In the News- A cat parasite (*T. gondii*) affecting humans was linked to

Selected Answer: ☒ higher rates of students majoring in business

Answers: higher blood pressure
higher grades in Biology 1010
☒ higher rates of students majoring in business
higher rates of cancer

Question 9

2 out of 2 points

Organisms living near hydrothermal vents get their energy from

Selected Answer: ☒ sulfur compounds

Answers:

- ☐ low levels of light
- ☒ sulfur compounds
- ☐ oxygen compounds
- ☐ nitrogen compounds

Question 10

1 out of 1 points

The principle of competitive exclusion states that competition for the same resources excludes species from having different life styles.

Selected Answer: ☒ False

Answers:

- ☐ True
- ☒ False

Question 11

2 out of 2 points

When one organism benefits from a relationship while the other organism is neither harmed nor helped this is called?

Selected Answer: ☒ commensalism

Answers:

- ☐ competition
- ☒ commensalism
- ☐ mutualism
- ☐ obligate

Question 12

2 out of 2 points

There are a number of unique ways that predators detect their prey. The hammerhead shark detects prey using _____ and the Star-nosed mole detects prey using _____.

Selected Answer: ☒ panoramic vision; nose feelers

Answers:

- ☐ whisker feelers; nose feelers
- ☐ panoramic vision; smell
- ☒ panoramic vision; nose feelers

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Review Test Submission: Ecology Exam - 2109_INTRODUCTION...
none of the answers are true
sonar; smell

Question 13

Answers:

panoramic vision; smell

☒ panoramic vision; nose feelers

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Review Test Submission: Ecology Exam – 2109_INTRODUCTION...

none of the answers are true

sonar; smell

Question 13

2 out of 2 points

Dead zones are

Selected Answer: ☒ low oxygen zones

Answers:

low nutrient zones

low pH zones

low turnover zones

☒ low oxygen zones

high pH zones

Question 14

2 out of 2 points

The interconnected feeding pattern of organisms is called a

Selected Answer: ☒ food web

Answers:

☒ food web

internet of things

nourishment pattern

food matrix

Question 15

2 out of 2 points

The dodder wraps itself around another plant and gets its energy from the other plant. This relationship is characterized as

Selected Answer: ☒ parasitic

Answers:

mutualistic

☒ parasitic

all of the above

predator-prey

Question 16

0 out of 1 points

Negative feedback is a process in which the output of a system eventually diminishes its input.

Selected Answer: ☒ False

Answers: ☒ True
☐ False

Question 17

1 out of 1 points

Prevention of an invasive species introduction costs more than management of the species once introduced.

Selected Answer: ☒ False

Answers: ☐ True
☒ False

Question 18

2 out of 2 points

The Sixth Extinction refers to

Selected Answer: ☒ what could occur in present time

Answers: ☐ the loss of the dinosaurs
☐ the extinction immediately after the RNA World
☐ Snowball Earth 2.4 BYA

☒ what could occur in present time

☐ the global environmental change that claimed 96% of marine animal species & 70% of terrestrial life

Question 19

0 out of 2 points

If the temperature rises two (2) degrees above pre-industrial levels, which of the following is **not predicted** to occur?

Selected Answer: ☒ all the answers are predicted to occur

Answers: ☐ animal migration patterns will change
☐ all the answers are predicted to occur
☐ pole warming and vanishing ice
☒ increases in the amount of freshwater
☐ heat waves will occur more often and last longer

Question 20

0 out of 2 points

What is eutrophication?

Selected Answer: ☒ a body of water becoming more acidic

- Answers:
- ☐ a body of water becoming more acidic
 - ☐ the destruction of an invasive species by a native one
 - ☐ a type of predator/prey relationship
 - ☒ excessive nutrients in water causing excess algal growth

Question 21

2 out of 2 points

What is the definition of biodiversity?

Selected Answer: ☒ the number and variety of species in ecological systems at local to global scales

- Answers:
- ☐ the total number of animals in ecological systems at a local scale
 - ☐ the total number of species in the world
 - ☒ the number and variety of species in ecological systems at local to global scales
 - ☐ the number of species in a particular biome

Question 22

0 out of 1 points

Net Primary Productivity (NPP) in oceans is higher in the continental margins than open ocean areas.

Selected Answer: ☒ False

- Answers:
- ☒ True
 - ☐ False

Question 23

2 out of 2 points

A dog and a tick is an example of which relationship?

- Selected Answer: ☒ parasitism
- Answers:
- ☐ commensalism

mutualism

predator/prey

☒ parasitism**Question 24**

0 out of 2 points

Svante Arrhenius proposed that ice ages were caused by atmospheric changes in

Selected Answer: ☒ water vapor

Answers: water vapor

nitrous oxide

methane

☒ carbon dioxide**Question 25**

2 out of 2 points

Lynx and pelt sales were important in discovering

Selected Answer: ☒ population dynamics in predator prey relationships

Answers: bottom up controls on ecosystems

population dynamics in mutualistic relationships

☒ population dynamics in predator prey relationships

forest ecosystem services

Question 26

2 out of 2 points

The image below shows:

Selected Answer: ☒ none of the answers are true

Answers: natural variation in a spiders' ability to make webs

webs built by different spider species

☒ none of the answers are true

the impact of parasites on spider abundance

Question 27

2 out of 2 points

In the example of keystone species in the Kelp ecosystem, discussed in class, which species was the keystone species?

Selected Answer: ☒ sea otters

Answers: ☒ sea otters

sea urchins

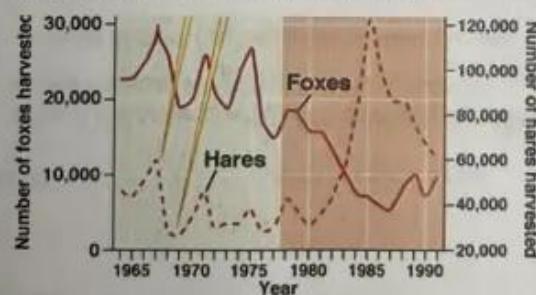
sea lions

oceanic fish

Question 28

2 out of 2 points

It is well known that the fox and hare exist in a predator-prey relationship. The data in the graph can be best interpreted as follows:



Selected

Answer: ☒ when the fox population suddenly decreased because of a parasite, the hare population dramatically increased

Answers: none of these choices

☒

when the fox population suddenly decreased because of a parasite, the hare population dramatically increased

the hare population suddenly spiked driving down the fox population

the fox and hare populations have cyclical changes that can be predicted from long-term studies

the modeling suggested that the period from 1980 - 1990 was due to global climate change

Question 29

2 out of 2 points

A plant that grows on a newly cooled lava flow is called

Selected Answer: ☒ pioneer species

- Answers:
- ☐ parasitism
 - ☐ secondary succession
 - ☒ pioneer species
 - ☐ obligate aerobe
 - ☐ climax species

Question 30

2 out of 2 points

What is the name of a "species" that is highly connected to the entire food web and whose loss may result in ecosystem collapse?

Selected Answer: ☒ keystone species

- Answers:
- ☐ limiting species
 - ☐ climax species
 - ☒ keystone species
 - ☐ pioneer species
 - ☐ top species

Question 31

2 out of 2 points

Biotic factors that affect biomes include

Selected Answer: ☒ competition for resources such as food or light

- Answers:
- ☐ all of the answers are true
 - ☒ competition for resources such as food or light
 - ☐ soil and wind for terrestrial systems
 - ☐ dissolved oxygen, salinity, currents for aquatic systems

Question 32

2 out of 2 points

As one moves from high latitudes toward more equatorial regions, biodiversity increases. Which of the following is **NOT** a characteristic of equatorial regions and would **NOT** support this observation?

Selected Answer: ☒ lower speciation rates

- Answers:
- ☐ larger geographical ranges
 - ☐ more stable environment
 - ☐ increased specialization
 - ☒ lower speciation rates
 - ☐ lower extinction rates

Question 33

2 out of 2 points

The growth of a community of phytoplankton will vary during their annual growth cycle. What explains the irregularity seen in their growth pattern?

Selected Answer: ☒ all of the answers are true

- Answers:
- ☒ changes in nutrients
 - ☐ all of the answers are true
 - ☒ changes in dissolved oxygen in the water system
 - ☐ changes in temperature

Question 34

1 out of 1 points

Hydrogen is considered an important greenhouse gas.

Selected Answer: ☒ False

- Answers:
- ☐ True
 - ☒ False

Question 35

2 out of 2 points

A change in a biome from a large undisturbed area to an area that is **substantially** fragmented can

- Selected Answer: ☒ lead to a decrease in species diversity
- Answers:
- ☒ lead to a decrease in species diversity

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provide distinct advantages to upper trophic level predators

have a positive impact on global climate variations

occur due to geological shifts in land masses

Question 36

1 out of 1 points

The main benefits from mutualism are trophic, defensive and dispersive.

Selected Answer: ☒ True

Answers: ☒ True
☐ False

Question 37

0 out of 2 points

What is the tardigrade an example of?

Selected Answer: ☒ extremophile

Answers: ☐ facultative anaerobe
☐ successfully genetically engineered organism
☐ extremophile
☒ extreme resistance
☐ parasitic organism

Question 38

0 out of 2 points

Studies of different species of birds that live in forests have shown that to avoid competition, the birds will use the limiting resource in a slightly different way (e.g. foraging at different heights of the trees). This is known as:

Selected Answer: ☒ niche adjustment

Answers: ☐ niche overlap
☐ character displacement
☐ niche adjustment
☒ competitive exclusion

Question 39

2 out of 2 points

In general, an approximation supporting the principle of island biogeography is that biodiversity _____ as surface area _____.

Selected Answer: ☒ doubles increases ten-fold

Answers: ☒ doubles increases ten-fold
☐ doubles...doubles
☐ increases decreases
☐ increases five-folddoubles

Question 40

2 out of 2 points

The prickly pear cactus

Selected Answer: ☒ all of the answers are correct

Answers: ☐ is eaten by the *Cactoblastis* moth
☒ all of the answers are correct
☐ initially grew uncontrolled in Australia
☐ is not native to Australia

Question 41

2 out of 2 points

The vegetation in northern Canada is similar to what one finds in Siberia. This is most likely due to

Selected Answer: ☒ equivalent rainfall and temperature

Answers: ☐ the fact that these places are at the same longitude
☐ specific seeding and colonization
☐ transfer of species by European settlement in Canada in the 1700s
☒ equivalent rainfall and temperature

Question 42

2 out of 2 points

Gross Primary Production (GPP) is the

Selected Answer: ☒ total amount of energy fixed by all autotrophs(plants) per unit area & time

Answers:



total amount of energy fixed by all autotrophs(plants) per unit area & time

total amount of (dry) producer biomass in an ecosystem at a given point in time

energy remaining after autotrophs have met their own energetic needs

none of the answers are true

Question 43

0 out of 1 points

The productivity hypothesis infers that increased biodiversity exists near the equator because there is a more stable climate

Selected Answer: ☒ TrueAnswers: ☐ True☒ False**Question 44**

2 out of 2 points

Behavior modifications of a snail (*Succinea*) due to parasite infections are important because:

Selected



Answer:

the snail flaunts itself to birds that eat the snail and become hosts for development of the parasite

Answers:



the snail flaunts itself to birds that eat the snail and become hosts for development of the parasite

the snail stays in the shade which helps the parasite grow due to decreased temperature exposure

the snail modifies its behavior and habits so it can reproduce with other snail species

birds that eat the snail die after which the parasite is released to infect other snails

Question 45

2 out of 2 points

A mutualist relationship where each species benefits from the association, but **can't**

survive independently of its partner(s) is

Selected Answer: ☒ obligate

Answers: ☐ anaerobic

☐ none of the answers are correct

☐ facultative

☒ obligate

Question 46

2 out of 2 points

Which of the following is **NOT** a greenhouse

Selected Answer: ☒ all are greenhouse gasses

Answers: ☐ methane

☐ water vapor

☐ carbon dioxide

☒ all are greenhouse gasses

☐ nitrous oxide

Question 47

2 out of 2 points

The Gaia Hypothesis represents the planet as

Selected Answer: ☒ a self-regulating organism

Answers: ☒ a self-regulating organism

☐ a life-sustaining planet

☐ a multicolored planet

☐ all of the answers are true

Question 48

0 out of 1 points

Interspecific competition is between two organisms of the same species. (True/False)

Selected Answer: ☒ True

Answers: ☐ True

☒ False

Question 49

2 out of 2 points

The modern view of nature is that

Selected Answer: ☒ nature is never at an equilibrium

Answers: ☐ we can predict what all communities will look like

☐ large amounts of disturbance is ideal

☐ all of the answers are true

☒ nature is never at an equilibrium

Question 50

0 out of 2 points

The zebra mussel is an invasive species that

Selected Answer: ☒ impacts terrestrial environments

Answers: ☐ impacts terrestrial environments

☒ restructures aquatic food webs

☐ all answers are correct

☐ consumes fish

☐ clogs internet pipes

Question 51

1 out of 1 points

After reindeer were introduced and exceeded the carrying capacity on St. Mathews Island they were able to survive by diversifying the food resources they ate.

Selected Answer: ☒ False

Answers: ☐ True

☒ False

Question 52

2 out of 2 points

A reduction in the sea otter population affected the Pacific Coast ecosystem by:

Selected Answer: ☒ decreasing the biodiversity of the ecosystem

Answers: ☐ reducing the size of the sea urchin population

☐ promoting the fishery

☒ decreasing the biodiversity of the ecosystem

Question 53

2 out of 2 points

What is species richness

Selected Answer: ☒ the number of species in an ecosystem

- Answers:
- ☐ the number of animals present in an ecosystem
 - ☐ the biomass of the species in an ecosystem
 - ☐ how diverse a species is
 - ☒ the number of species in an ecosystem

Question 54

0 out of 2 points

Aquatic invasive species have been associated with

Selected Answer: ☒ outcompeting native species

- Answers:
- ☐ outcompeting native species
 - ☐ negative economic impacts
 - ☐ intentional releases of non-native organisms
 - ☒ all of the answers are correct

Question 55

2 out of 2 points

Removal and exclusion experiments indicate

Selected Answer: ☒ predators have a major impact on prey survival and abundance

- Answers:
- ☐ predators have no impact on prey survival and abundance
 - ☒ predators have a major impact on prey survival and abundance
 - ☐ predators have a minor impact on prey survival and abundance
 - ☐ prey have no impact on predator survival and abundance

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