

Ecology: Ecosystem Dynamics and Conservation Quiz Answers

[**100** Correct Answer]




Coursera

**Ecology: Ecosystem
Dynamics and Conservation**

**All Quiz Answers
With Peer Graded
Assessment**



Apply Now


Hello Peers, Today we are going to share **all week assessment and quizzes answers** of **Ecology: Ecosystem Dynamics and Conservation** course launched by Coursera for totally free of cost   . This is a certification course for every interested students.

In case you didn't find this course for free, then you can **apply for financial ads** to get this course for totally free.

Checkout this article for – “[How to Apply for Financial Ads?](#)”

Coursera, a **India's biggest learning platform** which launched millions of free courses for students daily. These courses are from various recognized university, where industry experts and professors teaches in a very well manner and in a more understandable way.

Here, you will find **Ecology: Ecosystem Dynamics and Conservation Exam Answers** in **Bold Color** which are given below.

These answers are updated recently and are 100% correct  answers of all week, assessment and final exam answers of Ecology: Ecosystem Dynamics and Conservation from Coursera Free Certification Course.

Use “Ctrl+F” To Find Any Questions Answer. & For Mobile User, You Just Need To Click On Three dots In Your Browser & You Will Get A “Find” Option

Apply Link – [Ecology: Ecosystem Dynamics and Conservation](#)

Ecology: Ecosystem Dynamics and Conservation Quiz Answers

Week- 1

Module One: What have you learned?

1. What are the characteristics of a savanna biome?

- **Trees form an open canopy, allowing enough light to reach the ground for grasses and herbaceous (non-woody) plants to cover the ground.**
- Trees form a closed canopy, so vegetation on the forest floor is sparse.
- It is an open landscape with no trees and dominated by grasses.
- None of the above

2. When most large herbivores are lost, the effects on the environment can be dramatic and cascading because:

- Large herbivores shape ecosystems by creating paths to water sources, and smaller species follow their tracks.
- Their hooves break up soil, which allows water to percolate deeper and exposes ground where seeds can germinate.
- Their dung adds vital nutrients to the soil, supporting a higher diversity of plant species and more productive growth.
- **All of the above**

3. Organismal ecologists study individual organisms and their adaptations to specific habitats and conditions. For example, in Gorongosa National Park, these scientists study:

- the maximum number of waterbuck that can live within the Park's boundaries
- how many zebras need to be introduced to Gorongosa National Park in order to ensure genetic diversity
- **bats and how they use echolocation to find their prey in the darkness**

- how the presence of a termite mound changes or affects the community of plants and animals in the nearby area
4. The way a population of organisms is defined may depend on:
- genetic criteria
 - geographic boundaries
 - behavioral interactions
 - **any of the above, depending on what question the ecologist is asking or what approach they are using**
5. There is considerable overlap between concepts, approaches, and principles in the different areas of study in ecology, but one way to organize the field is based on an ecological hierarchy. Please choose the answer below that reflects the hierarchy depicted in the figure.
- organism, community, ecosystem, population, biosphere
 - population, community, landscape, ecosystem, biosphere
 - **organism, population, community, ecosystem, biosphere**
 - organism, population, ecosystem, community, biome
6. The intrinsic value of biodiversity refers to:
- **its inherent worth regardless of its use or benefit to humans**
 - potential benefits, such as medicines and services that have yet to be discovered
 - how it shapes who we are, our relationships to each other, and our wider social norms
 - crucial services like pollination
7. A systems thinker will not:
- seek root causes
 - look for patterns over time
 - pay attention to the parts and the whole, and ask about relationships to other events
 - **react to individual problems as isolated occurrences**
8. When we look through a systems “lens,” we see the world as elements and processes that connect and interact in dynamic ways to form a whole, whether we are looking at ecosystems, economies, or ourselves. The iceberg model (see figure below) is a useful visual tool to probe the structures and mental models that underlie system behavior and create patterns of events. If we want to change a system’s behavior, examining and investing in the root levels can have more lasting effects on how the system works than simply trying to respond around a particular event, or the “tip of the iceberg.” If the “tip of the iceberg” is that African elephants are considered vulnerable to extinction, what is an example of patterns (what trends do we see over time?) that underlie it?
- The human economy is independent of finite natural systems.
 - **Global demand for ivory is increasing.**
 - Carved ivory objects are considered a symbol of high social status in some cultures.
 - The African elephant is the largest land mammal.
9. Dr. Pringle explains that the amount of certain vegetation types, like trees, can be determined by abiotic factors, such as rainfall. What can you conclude from this particular figure (Sankaran and colleagues 2005)?
- Credit: Adapted by permission from Macmillan Publishers Ltd: Sankaran, M, et.al., Nature 438 (2005): 846
- Drought suppresses tree growth at high annual rainfall.
 - **At 700mm rainfall, woody cover hits the threshold of approximately 80%.**
 - Biotic interactions suppress tree growth at low annual rainfall.
 - Rainfall hits a threshold at 700mm.
10. Dr. Pringle argues that savanna habitats are shaped by both abiotic and biotic factors. Which one of the following examples is not a biotic factor?
- predation
 - presence/abundance of elephants
 - plant-plant interactions
 - **nutrient content of soil**

Week- 2

Module Two: What have you learned?

1. What are the five basic components that underlie population dynamics?
- births, deaths, sexual dimorphism, age structure, and dispersal
 - births, deaths, sex ratio, age structure, and habitat location
 - **births, deaths, sex ratio, age structure, and dispersal**
 - none of the above
2. Survivorship is defined as:
- **the fraction of individuals that lives up to a certain age**
 - the fraction of individuals that die per unit of time
 - the fraction of individuals that live through a particular time period
 - the number of young born or hatched per unit of time
3. Large mammals such as whales, bears, and elephants have a survivorship curve similar to:
- **Type 1**
 - Type 2
 - Type 3
 - None of these; whales, bears, and elephants each have different types of survivorship curves.
4. Mathematical models help ecologists to:

- summarize and interpret information collected from the field
 - generate testable predictions
 - identify patterns in their data and the mechanisms responsible for those patterns
 - **all of the above**
5. The threshold or maximum number of individuals that an area can support is known as its:
- community shift
 - logistic growth
 - **carrying capacity**
 - maximum sustained yield
6. If a population exceeds its carrying capacity (K), then...
- Its growth rate is less than zero, and the population increases toward K.
 - Its growth rate is greater than zero, and the population increases toward K.
 - **Its growth rate is less than zero, and the population declines toward K.**
 - None of the above.
7. The waterbuck population in Gorongosa National Park experienced a period of exponential population growth because:
- Being an invasive species, it found no competition in the park.
 - **The civil war resulted in the loss of many of its large herbivore competitors.**
 - In the wake of a severe drought, the few surviving individuals faced fewer barriers to reproduction for a period of time.
 - None of the above.
8. In her lecture, Dr. Tarnita asks, “Why are waterbuck recovering so fast and why is their population larger than what it was before the war?” Through the lecture she demonstrates that:
- The population growth has been highly altered by predation from carnivores.
 - The skewed sex ratios of the initial population has led to the rapid increase in population size.
 - The small numbers of waterbuck after the war led to random/by chance events determining current population sizes.
 - **The waterbuck’s population growth pattern is predictable and matches a logistic growth model.**
9. Based on Dr. Tarnita’s lecture and your interpretation of this conceptual model, juvenile waterbucks are lost from a population through:

Credit: Corina Tarnita, HHMI 2015 HL

- **the maturation of juveniles and the death of juveniles**
 - the death of adults
 - the birth of new juveniles
 - the death of juveniles
10. Below, the first figure shows the population sizes over time of different herbivores in Gorongosa National Park. The second figure only highlights elephants and zebras. While zebra population numbers have not drastically increased from 1994, elephant numbers have started to rebound—but not to the same extent as waterbuck (as seen in the first figure). Based on your understanding of the lecture and population dynamics, which of the following statements is correct:

Credit: Peter Stahlmans and Corina Tarnita unpublished data, 2015 HHMI HL

- **The elephant population may be experiencing logistic growth, but it’ll take longer to see the full growth curve (recovery) because elephants mature later and live longer than waterbuck.**
- The elephant population is experiencing exponential growth and therefore it will not increase more.
- Because zebra numbers have stabilized, they must have hit carrying capacity.
- None of the above

Week- 3

Module Three: What have you learned?

1. In the following simple food chain from Gorongosa National Park (grass → waterbuck → lions), waterbuck represent:
- primary producers
 - **primary consumers**
 - tertiary consumers
 - secondary consumers
2. What is a critical factor affecting a community’s composition after a major disturbance?
- its carrying capacity
 - evolutionary processes (e.g., speciation)
 - **the regional species pool**
 - the community’s growth rate
3. In this species interaction, both populations have a positive net effect on the population size of the other species:
- predation
 - competition
 - **mutualism**
 - commensalism
4. When the interaction between predators and herbivores, or herbivores and plants acts as a major selective force, it is an example of :
- ecological niches
 - niche differentiation
 - **coevolution**
 - amensalism

5. An example of parasitism is:

- the blind pistol shrimp creating a burrow used by both itself and the goby fish for protection, where the goby fish keeps an eye out for predators and alerts the shrimp when danger is near
- a giraffe trampling the grass around an Acacia tree while grazing on its branches
- ants protecting Acacia trees from browsing animals by swarming and stinging them, and in return feeding on the tree's nectar
- **Leucochloridium, a worm that creates caterpillar mimics in snail eyestalks**

6. In a bottom-up community, if you remove predators, lower trophic levels:

- **shouldn't be affected**
- should experience exponential population growth
- should increase
- should decrease

7. Certain species can affect entire communities, because:

- they are highly abundant (e.g., dominant species)
- they play a pivotal role in community dynamics (e.g., keystone species)
- of how they influence the physical environment (e.g., ecosystem engineers)
- **any of the above**

8. A community may be considered resilient if:

- **It easily changes its composition after a disturbance.**
- It quickly returns to its original state after a disturbance.
- It maintains its original structure over time regardless of disturbance.
- It disperses easily.

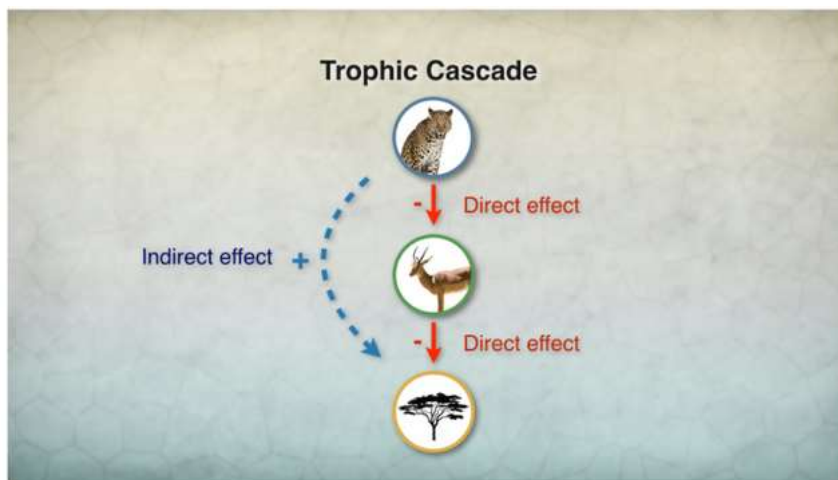
9. Recall Dr. Pringle's lecture on the coexistence of species, in which this figure was used to demonstrate the grazing patterns of different species. It depicts the concept(s) of:

Credit: Adapted from Bell, R.H.V., Scientific American 225 (1971): 86-93

- trophic cascades
- trophic pyramid
- **niche partitioning**
- all of the above

10. Why is the world green? Choose the figure that best represents the proposed answer to this question.

Image Credits: Corina Tarnita, 2015 HHMI HL



Week- 4

Module Four: What have you learned?

1.

Question 1

Which of the following is NOT an abiotic component of ecosystems?

1 point

- **population dynamics**
- nutrient availability
- natural disturbances
- temperature

2.

Question 2

Energy most frequently enters an ecosystem as:

1 point

- heat, during processes such as cellular respiration
- **solar radiation**
- chemosynthesis
- photosynthesis

3.

Question 3

What percent of the solar energy that reaches plants (primary producers) is reflected or passes through them without being absorbed?

1 point

- 40%
- less than 1%
- 60%
- **99%**

4.

Question 4

On average, 100 kg of plant material can support approximately:

1 point

- **10 kg of herbivore biomass and 1 kg of carnivore biomass**
- 1 kg of herbivore biomass and 10 kg of carnivore biomass
- 10 kg of herbivore biomass and 5 kg of carnivore biomass
- 5 kg of herbivore biomass and 1 kg of carnivore biomass

5.

Question 5

Found in limited supply, both _____ and _____ are elements needed for the growth and reproduction of primary producers because they are the building blocks of many critical biochemicals.

1 point

- carbon; phosphorus
- oxygen; phosphorus
- nitrogen; amino acids
- **nitrogen; phosphorus**

6.

Question 6

Categories of concern where human activity currently exceeds planetary boundaries (according to the Stockholm Resilience Center) include:

1 point

- biochemical flows and freshwater use
- **biodiversity loss and land-system change**
- climate change and ocean acidification
- biodiversity loss and freshwater use

7.

Question 7

A study which showed that the more diverse grasslands within Yellowstone National Park were more resistant and experienced less changes in plant species composition illustrates:

1 point

- **the Diversity-Stability Hypothesis**
- ecosystem resilience
- ecosystem function
- ecosystem services

8.

Question 8

According to the Millenium Ecosystem Assessment, pollination is an ecosystem service that can best be classified as a:

1 point

- supporting service
- **regulating service**
- provisioning service
- cultural service

9.

Question 9

Payments for Ecosystem Services (PES) offer incentives for landowners or stewards to restore or maintain ecosystems and one or more of the services they provide. What types of concerns exist about these programs?

1 point

- Equity concerns: who is benefiting from these programs and are all stakeholders being considered?
- Ethical concerns: every species has an intrinsic right to exist and the fate of our resources should not depend on market fluctuations.
- Accuracy concerns: monetary assessments vary widely, depending on what is being assessed and who is doing the assessment.
- **All of the above**

10.
Question 10
A tropical forest is valued:

1 point

- **differently depending on the audience**
- for food and medicinal resources it provides
- for its spiritual significance
- for the market value of its timber

Week- 5

Module Five: What have you learned?

1.
Question 1
Fragmentation refers to:

1 point

- the disappearance of an entire ecosystem
- the accumulation of substances (such as pesticides or other chemicals) in an organism
- **the subdivision of a formerly contiguous landscape into smaller units, usually a product of habitat loss**
- when an environment is modified to the extent that a particular organism can no longer survive there

2.
Question 2
A consequence of the warming climate is that:

1 point

- The mosquitoes that transmit malaria, Zika, and dengue fever are shrinking their range.
- **Some plants are blooming earlier in the season, but their pollinators and/or the species that use those plants as a critical food resource, are still arriving later in the season.**
- Coral reefs are becoming more able to absorb the calcium carbonate they need to maintain and grow their skeletons.
- An increased amount of mercury is ingested by marine species.

3.
Question 3
Lions in Gorongosa National Park are targeting smaller prey (e.g., warthog), despite recovering herbivore populations. A systems thinker might ask:

1 point

- How will this shift change the behavior of the prey species?
- Will there be cascading effects or feedback loops that will affect lion recovery or the larger Gorongosa ecosystem?
- Is pride size being limited by a preference for smaller prey?
- **All of the above**

4.
Question 4
The degree of ownership, engagement, and commitment on the part of local, national, or even international stakeholders...

1 point

- is not important to consider when creating a Protected Area
- is not nearly as important as the quality of science being conducted in a Protected Area
- **can determine the long-term success or failure of Protected Areas**
- is the the same for each Protected Area

5.
Question 5
Some opponents of E.O. Wilson's "Half-Earth" proposal favor a "Whole Earth" approach that:

1 point

- includes ambitious restoration and rewilding programs
- dramatically reduces the human ecological footprint through technology
- increases the percentage of protected areas covering the Earth's surface
- **tackles the roots of environmental degradation**

6.
Question 6
The following is an example of the "novel ecosystem" approach:

1 point

- eradicating brown tree snakes in Guam
- preventing the spread of zebra mussels to the Hudson River
- **allowing cedar stands to grow in the Galápagos**
- all of the above

7.
Question 7
In its recovery, the Gorongosa ecosystem has changed from one dominated by _____ to one dominated by _____.

1 point

- **buffalo; waterbuck**
- buffalo; reedbuck
- wildebeest; waterbuck
- waterbuck; buffalo

8.

Question 8

What factors might be affecting the recovery of Gorongosa's lion population?

1 point

- invasive species
- woodland expansion
- interspecies competition
- **prey composition and/or abundance**

9.

Question 9

In her lecture, Dr. Porzecanski highlights several reasons why humans should be considered part of many ecosystems. Which of the following are examples of how we are part of the system?

1 point

- As living organisms, humans are part of biodiversity.
- Ecosystems have shaped human evolution and culture.
- Humans affect ecosystems in profound ways.
- **All of the above**

10.

Question 10

Today, the Amazon rainforest stands on soil that was manipulated by people thousands of years ago through their land use practices. Because of this fact, Dr. Sterling suggests that:

1 point

- **We need to question our definitions of natural and pristine and realize humans are part of nature and need to be incorporated into conservation.**
- If the Amazon can recover from past human disturbance, it will recover from present human disturbance.
- The Amazon is not pristine habitat to be considered important for conservation.
- The Amazon cannot be considered natural because of past human influence.

Conclusion

Hopefully, this article will be useful for you to find all the **Week, final assessment and Peer Graded Assessment Answers of Ecology: Ecosystem Dynamics and Conservation of Coursera** and grab some premium knowledge with less effort. If this article really helped you in any way then make sure to share it with your friends on social media and let them also know about this amazing training. You can also check out our other course [Answers](#). So, be with us guys we will share a lot more free courses and their exam/quiz solutions also and follow our [Techno-RJ Blog](#) for more updates.