G9 Advanced Biology
Chapter 9 Revision Sheet – Answer Key

Multiple Choice Questions.

Q1.	Which of the following are examples of abiotic factors in an ecosystem?
a.	Temperature, organic matter and sunlight
b.	Sunlight, inorganic nutrients and pH
c.	Organic matter, pH and temperature
d.	Plants, animals and temperature

Q2.	A population in an ecosystem consists of _____.
a.	organisms of a community that share the same habitat at different times
b.	organisms of a species that share the same habitat at the same time
c.	organisms of a species that share different habitats at the same time
d.	organisms of a community that share different habitats at the same time

Q3.	A large group of ecosystems that share the same climate is known as a _____.
a.	biosphere
b.	biological Community
c.	biome
d.	biotic Factor

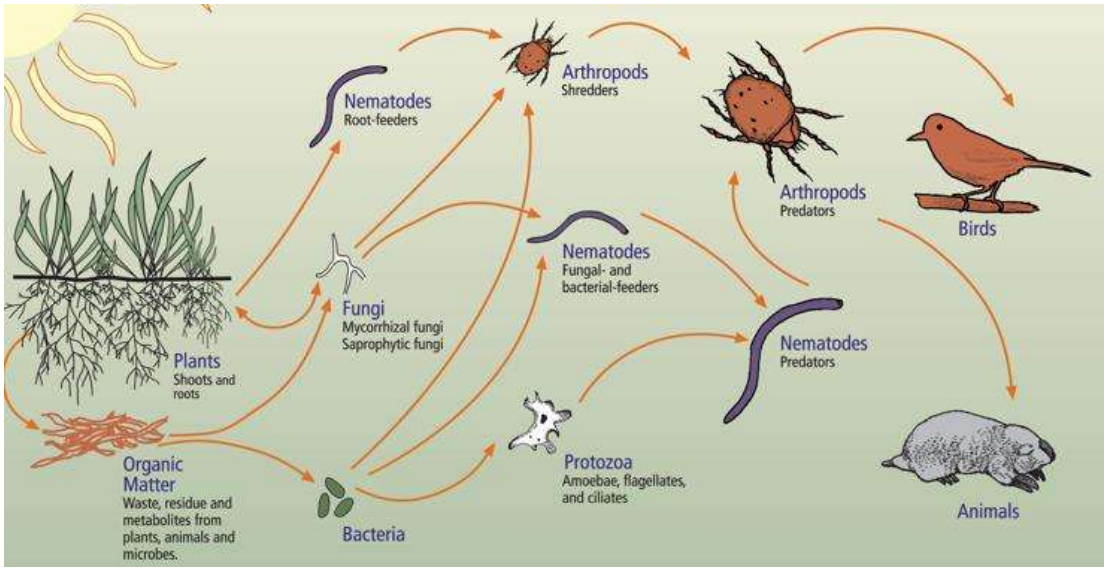
Q4.	When does competition occur?
a.	When more than one organism uses a resource at the same time.
b.	When less than three organisms use a resource at the same time.
c.	When more than one organism uses a resource at different times.
d.	When less than three organisms use a resource at different times.

Q5.	Which of the following are types of symbiosis?
a.	Parasitism, commensalism and existentialism
b.	Mutaulism, constructivism and commensalism
c.	Parasitism, organism and existentialism
d.	Mutualism, commensalism and parasitism

Q6.	Name the type of organism that collects energy from sunlight or inorganic substances for food.
a.	Herbivore
b.	Autotroph
c.	Omnivore
d.	Heterotroph

Q7.	Detrivores can be defined as organisms that _____,
a.	feed on dead matter and return nutrients to the environment
b.	feed on live matter and return nutrients to the environment
c.	are fed on by orgnisms to return nutrients to the environment
d.	are predators that feed on organisms and return nutrients to the environment

Q8.	What name is given to each step in a food chain or food web?
a.	Tropical level
b.	Topic level
c.	Trophic level
d.	Tropic level



Use the Food Web shown above to answer Q's 9 and 10.

Q9.	With reference to the food web above, which one of the following is an example of a primary consumer?
a.	Nematodes
b.	Anthropods
c.	Birds
d.	Plants

Q10.	Identify which of the following statements is true using the the food chainshown above.
a.	The birds and fungi eat anthropods
b.	The anthropods eat the birds and other animals
c.	The anthropods eat the birds and and fungi
d.	The birds eat the anthropods and the anthropods eat the fungi

Q11.	A scientist that studies the processes of water is known as _____.
a.	An oxolygist
b.	An osmologist
c.	A hydrologist
d.	A hydroxologist

Q12.	During the water cycle, water is returned to the atmosphere by which two processes?
a.	Transpiration and percolation
b.	Evaporation and transpiration
c.	Evaporation and percolation
d.	Percolation and condensation

Q13.	Complete the statement below. "In the carbon cycle, during photosynthesis, green plants and algae convert ……..."
a.	carbon dioxide and oxygen into carbohydrates and release oxygen back into air
b.	carbon dioxide and water into carbohydrates and release oxygen back into air
c.	oxygen and water into carbohydrates and release carbon dioxide back into air
d.	water and hydrogen into carbohydrates and release carbon dioxide back into air

Q14.	In the nitrogen cycle, what is the function of denitrying bacteria?
a.	They convert nitrates from the soil into nitrogen and return it back to the atmosphere.
b.	They convert nitrogen from the atmosphere into nitrates for plants to use.
c.	They break down dead matter and convert it into nitrates for plants to use.
d.	They convert nitrogen into nitric acid which gives rise to acid rain.

Q15.	In the phosphorus cycle, phosphorus is a factor that helps plants grow. Which type of organism is responsible for converting dead oranic matter into phosphates for plants?
a.	Carnivores
b.	Predatory animals
c.	Decomposers
d.	Predatory plants

Constructed Response Questions.

Q1 **a.**	**"Nitrates are required for plants and algae to grow."** **Explain how a high nitrate concentration can cause problems to aquatic animals.** **A high nitrate concentration causes excess growth of algae in bodies of water leading to eutrophication. This can cause suffocation or noxia in aquatic animals**
b.	**How do waterways end up with high concentrations of nitrates and phosphates?** **Run offs from farming fertileizers.**

Q2	**There are various types of symbiosis including mutualism, parasitism and commensalism.**
a.	**What is the definition of commensalism?** **A type of symbiosis where one organism benefits and the other is neither helped nor harmed.**
b.	**Describe a scenario where mutualism can be observed.** **Student lead answer. Any e.g. where both organisms are benfitting such as honey bee and flower.**