Ebora, Joyce Anne E. **GE 12 People and the Earth's Ecosystem**

BSSW A31 2018 **Prof. Bonmar Dela Cruz**

Assignment:

Chapter 1: Introduction

Answer the following:

1. Discuss the impact of science on society.
2. Using the biological spectrum, explain the scope and meaning of ecology.
3. Trace the history of ecology and discuss how industrial revolution affected the conditions of the environment.
4. How is ecology related to other disciplines?
5. How do you apply the laws of ecology to human society?

To answer the following, research the following for further understanding of the topics.

1. Scope and meaning of ecology and the spectrum of life.
2. Historical aspects of ecology.
3. Ecology: It's relevance and relationships with other fields.
4. Laws of Ecology: Applications to Human Society.

Answer:

1. The impact of Science on society can be seen in our environment and during our daily lives. Science has been with us since the beginning. From the simple fire that started with a lightning to the fire that we use to cook using burners and stove; from the food we eat; the houses we live in; the transportation we use and even the gadgets ad technologies we use every day. Every branch of Science has been a great help to explain things in a way that we can comprehend and understand. It is also a great contribution to the development of the society.
2. Ecology is the study of the relationships between living organisms. Ecology seeks to understand the relationship between human and their physical environment; connection between plants and animals. It also seeks knowledge about the ecosystem and their benefits for the future generations. Because ecology focuses on the broadest level of life, it can be studied in several levels, from proteins and nucleic acids, cells, organisms and at the level of populations, communities and ecosystem.
3. There are traces of ecology back to the beginning where man was just starting to learn how to survive. Man learned how to survive by using the environment he lived in, they know where and how they can get food and where they could live to survive. From there, people started to learn to travel and stay in one place to exhaust all the resources they could get like food and water. As soon as they emptied all the resources they could get, they will move to another place and repeat what they had been doing. Years after years, nomadic ways stopped and people began to settle to places and learned to make

handicrafts like making pots, weaving and manufacture foods. They also learned to tame animals and use plants to other things other than cooking. But because of these, people learned to use their environment to get what they need. People learned to cut down trees and burned forest for the sake of their need in result of soil erosion and rampant flooding. Now, people cut trees and burn forest for the sake of what they call development for future generations which greatly affect the other factors like climate change and worsen the effects of natural hazards.

4. The relationship of ecology to other disciplines is very important and crucial in solving environmental problem. Because ecology studies the broadest level of life, it draws heavily on other branches of science, such as geology and geography, meteorology, pedology, chemistry and physics. It shares the scientific method with other branches of science. To fully understand an ecosystem, you need to understand its physical environment which require understanding of physics, meteorology, oceanography, limnology, geology and geography and to understand the ecosystem and the living things that are living in it, you need to understand and learn biology, botany, and biochemistry.
5. Barry commoner formulated four laws of Ecology. These laws are important in order to understand the ecological impact to the environment and to the human society. The 4 laws of ecology are as important as caring for your pet, your child or for the environment and land you live in. From the first law up to the fourth law, it tells us that what we do, may it be the tiniest change can greatly affect others because on how everything is interconnected. The most common example of this is when human is cutting trees in order to make something out of it, like tools in building a house, making paper or even cutting it for industrial development. But this does not change the fact that even though we can make something out if it, this can worsen the effects of storms or even a simple rain that can cause landslides and floods.