

Bago University
Department of Botany
First Semester Examination, March, 2019

Third Year (B.Sc.)
Botany Specialization
Answer All Questions

Bot.3104
Environmental Biology
Time allowed: (3) Hours

I. Determine whether each statement is TRUE or FALSE.

(10 marks)

1. The exosphere is the outer fringe of earth's atmosphere.
2. Carbon dioxide is about 20 times more soluble than oxygen.
3. Camel can go without food and water as long as 10 days at a stretch.
4. Light has its most significant role in respiration.
5. The strong moving current of our is called pressure.
6. The population may be subdivided into demes or local population.
7. Chemical manufacturing industries emit acid vapour in the water.
8. Fluoride pollution in man and animals is mainly through water.
9. Zinc in the air occurs mostly as white zinc oxide fume and is toxic to plants.
10. In nature, flora and fauna go hand-in-hand and one cannot exist without the other.

II. Write correct word to complete the following sentences.

(10 marks)

1. Next to troposphere is the second zone called -----.
2. Stomata are completely absent in ----- leaves.
3. Soil with optimal concentration of various nutrients solutes are called -----.
4. In many plants the ----- rate increases with the increase in the light intensity.
5. Penicillin have been used extensively in human -----.
6. The term population has its origin in the Latin word ----- meaning people.
7. In adult penguin, the annual ----- rate is commonly between 12 and 30%.
8. Settling volcanic ash can kill vegetation by coating leaves and preventing -----and transpiration.
9. Tobacco smoke contains about 300 chemical compounds including nicotine ----- such as tar.
10. The litter derived from fallen leaves maintains ----- of soil by returning the nutrients.

III. Answer all questions.

(10 marks)

1. Tabulate the composition of atmospheric air.
2. List a combination of several factors in the homeothermic animals.
3. What is meant by the temperature and moisture?
4. Define monospecific population and polyspecific population.
5. Clarify the term inorganic and organic dust.

IV. Answer all questions.

(20 marks)

1. Give concise account on soil formation or pedogenesis.
2. Describe the types of abiotic environmental factors.
3. Summarized the point J-shaped of population growth forms.
4. Briefly outline the ammonia of gaseous pollutants.

V. Answer any three questions.

(30 marks)

1. Give a detailed account on soil pH.
2. Describe the temperature fluctuation in different environments.
3. What is pyramid? Explain three basic types of age-sex structure with diagram.
4. Explain the natality on population.
5. Discuss the biomagnification or bioamplification in water pollution by agrochemicals