

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

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

Bot.1101
Plant Biology
Time allowed: (3) Hours

- I. Determine whether each statement is TRUE or FALSE. (10 marks)**
1. Lemon and grape fruits are sour because they contain citric acid.
 2. Meiosis is the basic of asexual reproduction.
 3. The modern vascular plants are classified into five divisions.
 4. The ability of heterotrophs to produce glucose and food molecules.
 5. Antigens are molecules that can be recognized by the immune system.
 6. Bryophytes are land plants that contain vascular tissue for conducting, water and nutrients.
 7. Mosses are similar to liverworts and hornworts.
 8. Cytokinin and gibberellin, determine the growth of root and shoot system.
 9. All living things arise from pre-existing living things.
 10. Carbon dioxide supplies the carbon for the organic compounds.
- II. Write correct word to complete the following sentences. (10 marks)**
1. Our earth is one of the ----- of the solar system.
 2. The scientist testing is known as -----.
 3. The nucleus is ----- centre of the cells.
 4. The fibres are elongated and ----- at both ends.
 5. A *Euglena* can also live as a -----.
 6. Fungus diseases on plants are ----- blight.
 7. Methenobacteria are anaerobes which produce ----- gas.
 8. Nutrition is the processes of acquiring energy and -----.
 9. The general effect of ----- is to promote cell elongation.
 10. The lithosphere comprises the ----- components.
- III. Answer all questions. (10 marks)**
1. What is the first true cell like?
 2. Describe the three basic structures of the cells.
 3. Clarify the methenobacteria.
 4. Draw and label the mature cell of *Chlamydomonas*.
 5. Give the five classes of Pteridophyte.
- IV. Answer all questions. (20 marks)**
1. Write an account on nucleic acid.
 2. Describe structure and function of xylem.
 3. Tabulate the major groups of the plant kingdom.
 4. Clarify the term autotrophs and heterotrophs.
- V. Answer any three questions. (30 marks)**
1. Write a detailed account on nucleus or information centre.
 2. How many classes of kingdom fungi and explain about them.
 3. Discuss the Volvocine series or colonial green algae.
 4. Explain the transport of water and minerals in xylem.
 5. Give the explanation of dark reaction.