

**Bago University**  
**Department of Botany**  
**Second Semester Examination, September, 2019**

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

**Bot.1102**  
**Basic Concepts of Applied Botany**  
**Time allowed (3) hours**

**I. Determine whether each statement is TRUE or FALSE. (10 marks)**

1. Seed is a living, subject to genetic and other transformation and death.
2. The paper must be porous in order to sufficient temperature for the germination tests.
3. Photosynthesis take place in cell wall chlorophyll diffused throughout the cytoplasm.
4. Leave commonly absorb about 80% of the visible light that reaches them.
5. Bacteria play a major role in the diary products.
6. Caffeine is very bitter to the taste as are other tennins.
7. The exogenous application of gibberellins cause hyper elongation of intact flowers.
8. Many types of mushrooms have been cultivated for medicine since ancient times.
9. A cell is totipotent which means a cell has the ability to develop into whole organism.
10. Sufu sauce is used as a condiment or an ingredient in other sauce.

**II. Write correct word to complete the following sentences. (10 marks)**

1. Viable seeds are set to ----- some may fail to do because they are dormant.
2. The drying ----- should be made of non-corrosive metal.
3. The amount of CO<sub>2</sub> being taken from the ----- during daylight hours by all green plants.
4. Light exhibits properties of both ----- and particies.
5. The gases that trap the -----, like the glass of a greenhouse, are called "green-house gases".
6. Coffee is a small tree or shrub native to the mountains of -----.
7. Some bamboos can grow ----- 60-90 cm in a day.
8. Callus is normally deficient in ----- and are often maintained in the dark.
9. The ethylene hormone is produced by ----- fruits.
10. Carotenoid is used as pro-vitamin A, as an ----- and as organ pigment for drinks.

**III. Answer all questions. (20 marks)**

1. Define seed dormancy.
2. Mention the extraction of seeds from pome.
3. Comparison with the carotenoids and phycobilins.
4. Define the term micropropagation and clone.
5. Clarify the grafting season.

**IV. Answer all questions. (20 marks)**

1. Explain about the seed coat dormancy and embryo dormancy.
2. Write account on photorespiration and photo oxidation.
3. Give an explanation on the caffeine.
4. Discuss the non-traditional plants hormones.

**V. Answer any three questions. (30 marks)**

1. Describe the six different procedures to remove the gelatinous seed coating.
2. Explain about the chlorophyll.
3. Discuss the cytokinins and effects of cytokinins.
4. Tabulate the 10 selected plants associated with medicinal uses.
5. Write account on the antibiotics and vitamins.