

The Open University of Sri Lanka
Faculty of Natural Sciences
B.Sc/ B. Ed Degree Programme



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| Department | : Botany |
| Level | : 05 |
| Name of the Examination | : Final Examination |
| Course Code and Title | : BYU5318/BYE5318/PCU3104 |
| Academic Year | : 2019/20 |
| Date | : 21.10.2020 |
| Time | : 9.30a.m. – 11.30a.m. |
| Duration | : 2hrs |

1. Read all instructions carefully before answering the questions.
 2. This question paper consists of **06** questions in **01** page.
 3. Answer any **04** questions only. All questions carry equal marks.
 4. Answers for each question should commence from a new page.
 5. Draw fully labelled diagrams where necessary
 6. Involvement of any activity that is considered as an exam offence will lead to punishment.
 7. Use blue or black ink to answer the questions.
 8. Clearly state your index number in your answer script
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1.
 - a. Explain briefly how Volcanic eruption takes place and its effects on the environment.
 - b. Distinguish between convectional rain and Orographic rain.
 - c. "Stratosphere is important to life on earth due to two critical reasons". Discuss.
 - d. Write a brief note on the "significance of the hydrosphere in maintaining life on earth".

2.
 - a. What is biosphere and how does it link with other environmental systems?
 - b. Write an account on "ecological niche".
 - c. Describe the following with appropriate diagrams.
 1. Pyramid of Numbers
 2. Pyramid of Biomass
 3. Pyramid of Energy
 - d. Discuss the significance of the "Energy Pyramid".

3. "Both liquid and gaseous biofuels are considered as the products developed by the conversion of photosynthetic energy into heat energy through photothermal methods". Elaborate on this statement giving examples.

4.
 - a. Explain the process of recycling in solid waste Management with examples and benefits.
 - b. On what basis are hazardous and toxic wastes categorized?
 - c. What are the disposal methods being practiced for hazardous waste?

5.
 - a. What is an "Environmental Impact Assessment (EIA)?"
 - b. List the major objectives of an EIA.
 - c. Discuss the process of "Screening" highlighting its importance in protecting the environment by external development projects.

6. Write short notes on any **three (03)** of the following.
 - a. Involvement of microorganisms in Cycling of Nitrogen
 - b. Agriculture and land degradation
 - c. Composition of the soil and the soil profile
 - d. Environmental impacts of mining and processing of mineral resources