



THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF EDUCATION
BACHELOR OF EDUCATION (HONOURS) IN PRIMARY
EDUCATION – 2022/2023
LEVEL - 05
FINAL EXAMINATION
EPU5255– SCIENCE AND ENVIRONMENT FOR PRIMARY TEACHING
DURATION – TWO (02) HOURS

Date: 24.02.2024

Time: 1.30 p.m. – 03.30 p.m.

Answer All Questions in Part I and any three (03) questions from Part II.

PART - I

01. Inculcating scientific attitudes among students is one of the important outcomes of Science Education. State **five (05)** characteristics of scientific attitudes that should be developed among young children.
02. State **two (02)** activities that can be used by a teacher to provoke curiosity in exploring environment among young children.
03. State **three (03)** outcomes of science education.
04. “Biotic components in the ecosystem can be categorized into three groups based on their functions in the ecosystem”. Describe **three (03)** types of biotic components.
05. “Levers are simple machines”. Explain how you are going to teach the concept of levers to primary school children by citing examples for each type of lever.
06. “As living things have sensitivity, they can sense what is going around them and respond to the stimuli” How you explain the sensitivity of living things to primary students by citing **two (02)** examples.
07. “Carbon di-oxide is one of the greenhouse gases that contribute to greenhouse effect which causes global warming”. State **four (04)** human activities that lead to the increase in the concentration of carbon di oxide in the atmosphere.
08. State the main steps in scientific method.

(5 x 8 = 40 marks)

PART – II

09. “We live in a peculiar world where we are surrounded by many living and non-living things”
 - i. State **six (06)** unique characteristics of living things. (06 marks)
 - ii. “All living organisms are classified into different groups according to similarities and differences in their characteristics”. Plan an activity to teach about the classification of living organisms to primary grade students. (08 marks)
 - iii. Discuss **three (03)** importance of maintaining the biodiversity. (06 marks)

10. "Water and chemical elements are continuously cycled through ecosystems passing repeatedly through the biotic and abiotic components"
- Plan an activity to explain how water changes between its' three stages for Primary Children/Students. (10 marks)
 - Describe the importance of plants in maintaining natural cycles by citing **three (03)** facts. (06 marks)
 - Give **two (02)** reasons to explain how human activities can cause changes to natural cycles. (04 marks)
11. "Development of scientific skills is one of the desirable outcomes of science education"
- Describe **four (04)** skills that can be developed through science education. (08 marks)
 - Select any topic from the subject "Environment Related Activities". Explain how you are going to develop any **two (02)** of the above-mentioned skills among primary students through teaching this topic. (08 marks)
 - Explain the importance of science education by stating **two (02)** facts. (04 marks)
12. "Movement of energy in the ecosystem can be discussed from using food chains and food webs"
- Differentiate the **two (02)** concepts food chain and food web. (04 marks)
 - Describe how you are going to explain the concept of food chain to primary school children. (08 marks)
 - Write **four (04)** human activities that cause changes in ecosystem. (08 marks)
13. "Energy is essential for the existence of life processes on the earth"
- Citing **two (02)** examples for each type, briefly explain the **two (02)** broad categories of energy. (06 marks)
 - "Sun is the primary source of Energy". Do you agree this. Justify your answer citing **two (02)** facts. (06 marks)
 - Write **four (04)** habits that should be promoted among young children to conserve energy usage in their day today lives. (08 marks)

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