BLG1502
ANIMAL AND PLANT DIVERSITY

Duration: 2 Hours
Examiners:
First: MR AR MUDAU
Second: MS LT MANKGA

100 Marks
Closed book examination

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This paper consists of THREE (3) pages.

ANSWER ALL THE QUESTIONS IN THE EXAMINATION ANSWER BOOK PROVIDED.
QUESTION 1

Give the correct scientific term for each of the descriptions below. Write only the number with the correct term next to it. Each number and its term should be on a separate line in your answer book.

1.1 An organism that is capable of both heterotrophy and photosynthesis.
1.2 The innermost layer of the cortex in plant roots, a cylinder one cell thick that forms the boundary between the cortex and the vascular cylinder.
1.3 The use of living organisms to detoxify and restore polluted and degraded ecosystems.
1.4 The ovule-producing reproductive organ of a flower, consisting of the stigma, style and ovary.
1.5 A group of plant-like protists that is most closely related to plants.

[5x2 = 10]

QUESTION 2

2.1 What is photosynthesis?
2.2 Are plants more important to people, or are people more important to plants? Explain.
2.3 Distinguish between pollination and fertilisation.
2.4 Name the five characteristics that define land plants.

(3)
(6)
(6)
(5)

[20]

QUESTION 3

3.1 Describe the binomial system of classification.
3.2 Are the following scientific names correct? Give reasons.
   i. Acacia aeroloba
   ii. Panthera pardus
   iii. Ophisaurus ventralis
   iv. Homo sapie

(4x2 = 8)

[16]

QUESTION 4

Name the hormones of
4.1 anterior pituitary gland
4.2 gonads
4.3 adrenal glands
4.4 pineal gland

(6)
(3)
(4)
(1)

[14]

QUESTION 5

5.1 Describe how the carbon dioxide is picked at the tissues and deposited in the lungs.
5.2 Discuss the process of homeostasis.

(9)
(6)

[15]

[TURN OVER]
QUESTION 6

By means of a labeled diagram, describe the life cycle of a fern, clearly distinguishing between the gametophyte and the sporophyte generations [15]

QUESTION 7

Environmental adaptations may result in roots being modified for a variety of functions. Name at least 5 different types of modified roots and their functions [10]

TOTAL: 100 marks