UNIVERSITY EXAMINATIONS

UNIVERSITEITSEKSAMENS

UNISA university of south africa

BLG1502

October/November 2016

ANIMAL AND PLANT DIVERSITY

Duration 2 Hours

100 Marks

EXAMINERS

FIRST MR AR MUDAU

SECOND MS LT MANKGA

Closed book examination

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This paper consists of THREE (3) pages.

ANSWER ALL THE QUESTIONS IN THE EXAMINATION ANSWER BOOK PROVIDED.

[TURN OVER]

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? (3)
2 2 Are plants more important to people, or are people more important to plants? Explain (6)
2 3 Distinguish between pollination and fertilisation (6)
2 4 Name the five characteristics that define land plants (5)

[20]

QUESTION 3

3 1 Describe the binomial system of classification (8)
3 2 Are the following scientific names correct? Give reasons
- i Acacia aerioloba
- ii Panthera pardus
- iii *Ophisaurus ventralis*
- iv *Homo sapie*

(4x2 = 8)

[16]

QUESTION 4

Name the hormones of

4 1 anterior pituitary gland (6)
4 2 gonads (3)
4 3 adrenal glands (4)
4 4 pineal gland (1)

[14]

QUESTION 5

5 1 Describe how the carbon dioxide is picked at the tissues and deposited in the lungs (9)
5 2 Discuss the process of homeostasis (6)

[15]

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