

BLG1502

October/November 2013

ANIMAL AND PLANT DIVERSITY

Duration 2 Hours

100 Marks

EXAMINERS :

FIRST

SECOND

DR SM MAHLO

PROF SR MAGANO

Closed book examination.

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This paper consists of 3 pages

Answer ALL questions

[TURN OVER]

SECTION A**[50]****QUESTION 1**

- 1 1 Compare the cell structure of a prokaryotic cell with a eukaryotic cell (5)
- 1 2 Name the similarities between plants and green alga (5)
- [10]**

QUESTION 2

- 2 1 Compare parenchyma and collenchyma with regards to (10)
- a) Structure and composition of the cell wall
- b) Functions
- c) Positions in plants
- 2 2 Explain how a photosystem harvests light (10)
- [20]**

QUESTION 3

- 3 1 Explain the mechanism by which water rises in the plant to reach the leaves (10)
- 3 2 By means of a diagram explain the process of double fertilization flowering plants (10)
- [20]**

SECTION B**[50]****QUESTION 4****[10]**

- 4 1 Distinguish between radial and bilateral symmetry. (4)
- 4 2 Name the three subphyla of the phylum Chordata and give examples of each (6)

QUESTION 5

- 5 1 Distinguish between open and closed circulatory systems and give an example of animal in which each occurs. Also name the three basic components common to both systems (7)
- 5 2 Describe pulmonary and systemic circuits (8)
- [15]**

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QUESTION 6

Name the hormones of

- 6 1 Gonads (3)
- 6 2 Adrenal gland (4)
- 6 3 Pineal gland (1)
- [8]**

QUESTION 7

- 7 1 Discuss the process of homeostasis (7)
- 7 2 Describe and compare the process of conduction, convection, radiation and evaporation (10)
- [17]**

TOTAL: 100 marks