UNIVERSITY OF SWAZILAND

FINAL (MAIN) EXAMINATION PAPER 2017/2018

COURSE CODE : BIO261

TITLE OF PAPER : PLANT MORPHOLOGY

TIME ALLOWED : THREE (3 HOURS

INSTRUCTIONS :
1. ANSWER ANY FOUR (4) QUESTIONS
2. EACH QUESTION COUNTS 25 MARKS.
3. USE CLEARLY LABELLED DIAGRAMS WHERE NECESSARY

SPECIAL REQUIREMENTS:

GRAPH PAPER MAY BE PROVIDED ON REQUEST.

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR(S).

QUESTION 1.

Describe leaf venation in dicotyledonous higher plants, taking into account the physiological significance of the veins. Use diagrams where necessary.

[25 Marks]

QUESTION 2.

Describe under-ground stem modifications in plants and highlight their functional significance.

[25 Marks]

QUESTION 3.

Compare the similarities and differences in morphology between typical monocotyledonous and dicotyledonous seeds during germination.

[25 Marks]

QUESTION 4.

Describe phylotaxy and explain how the pattern development may indicate higher plant taxonomy.

[25 Marks]

QUESTION 5.

Explain the possible morphological indications associated with a compound leaf.

[25 Marks]

QUESTION 6.

Use illustrations to describe the morphology of the determinate branching pattern in higher plants.

[25 Marks]

[TOTAL MARKS: 100]