



MACHAKOS UNIVERSITY

University Examinations 2017/2018

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

FIRST YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE IN
ENVIRONMENTAL STUDIES

ENS 132:ENVIRONMENTAL BIOLOGY

DATE:20/12/2017

TIME: 8.30-10.30 AM

INSTRUCTIONS

1. Answer Question one (**compulsory**) from section A and **any two** questions in Section B.
2. Use clean well labelled diagrams wherever appropriate.

SECTION A

1.
 - a) Describe Morphogenesis (3 marks)
 - b) Explain what developmental anatomy is (3 marks)
 - c) Describe various factors affecting somatic embryogenesis (3 marks)
 - d) State the importance of biosystematics of living organisms to humanity (3 marks)
 - e) Outline three uses of carbohydrates (3 marks)
 - f) State **Three** effects of parasites on wildlife (3 marks)
 - g) Describe three characteristics of a prokaryotic cell (3 marks)
 - h) Describe self- perpetuation in organisms (3 marks)
 - i) Explain the role of parasites in plants (3 marks)
 - j) State three abiotic factors that affect living organisms (3 marks)

SECTION B

2. Discuss the structure and functions of Carbohydrates and proteins as chemicals of life (20 marks)
3. Describe the molecular basis of morphogenesis (20 marks)
4. Discuss citing examples various ways in which plants respond towards environmental stimulation (20 marks)
5. Discuss the internal structure and functions of a eukaryotic cell (20 marks)