

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF SCIENCE BIOLOGY, BACHELOR OF SCIENCE CHEMISTRY,
BACHELOR OF SCIENCE BIOCHEMISTRY, BACHELOR OF SCIENCE NATURAL
RESOURCE MANAGEMENT, BACHELOR OF SCIENCE WILDLIFE
MANAGEMENT, BACHELOR OF SCIENCE IN AGRICULTURE, BACHELOR OF
SCIENCE IN HORTICULTURE, AND BACHELOR OF EDUCATION SCIENCE**

BOTA 101: GENERAL BOTANY

STREAMS: AS ABOVE YISI

TIME: 2 HOURS

DAY/DATE: TUESDAY 10/12/2019

2.30 PM – 4.30 PM

INSTRUCTIONS:

- **Answer ALL questions in Section A and any Two in Section B**
- **Do not write anything on the question paper**
- **Use illustrations where appropriate to enhance your answers**

SECTION A (30 MARKS)

1. Give the name of the branch of botany that is involved in each of the following:

marks]

[6

- (i) Cultivation of field crops for food and industry.
- (ii) Study of medical plants with special reference to preparation and preservation of drugs.
- (iii) Study of the remains of ancient plants preserved in rocks in the form of fossils.
- (iv) Detailed structure of tissues making up the different organs of plants as revealed by the microscope.
- (v) Study of various functions performed by plants.
- (vi) Study of the sequence of descent of more complex, more recent and more advanced types of plants.

2. With the aid of diagrams. Describe four general shapes of bacterial.

[6 marks]

3. Explain three types of classification of plants. [6 marks]
4. (a) Distinguish between the photobiont and mycobiont. [1 mark]
- (b) Classify lichens based on the components of each type. [4 marks]
5. (a) Explain three possible events when a photon meets a plant pigment molecule. [3 marks]
- (b) Study the equation below and answer the questions that follow:
- (i) Identify the process represented by the equation. [1 mark]
- (ii) Identify what is represented by p [1 mark]
- (iii) Identify what is represented by q [1 mark]

SECTION B (40 MARKS)

7. (a) Classify angiosperms on the bases of cotylendon structure. [2 marks]
- (b) Discuss angiosperm characteristics basing on cotylendon structure. [18 marks]
8. Describe transport in plants by:
- (i) The aproplastic pathway [10 marks]
- (ii) The symplastic pathway [10 marks]
9. Citing examples of use, write an essay on the economic importance gymnosperms. [20 marks]
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