



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

THIRD YEAR APRIL SESSION EXAMINATION FOR BACHELOR OF SCIENCE
(BIOLOGY)

SBT 101: SURVEY OF PLANT KINGDOM

DATE: SCHOOLBASED

TIME:

INSTRUCTIONS

Answer ALL Questions in Section A and ANY TWO questions in Section B

SECTION A (COMPULSORY)

1. a) i. Describe the functions of the mesosomes in a bacterium. (2 marks)
ii. Name and illustrate the different types of flagella arrangements in Bacteria (3 marks)
- b) i. State three examples of algae found in different habitats. (3 marks)
ii. Explain the importance of algae to man. (4 marks)
iii. Describe two asexual reproduction methods in fungi. (3 marks)
- c) i. Briefly describe the forms of lichens. (3 marks)
ii. Draw a well labeled diagram of an archegonium of a moss plant. (3 marks)
iii. Explain how Pteridophytes succeeded in competition as weeds. (2 marks)
- d) i. State the key features that distinguish Pteridophytes from other plants. (2 marks)
ii. Explain how bryophytes related to algae. (2 marks)

- iii State the subdivisions of the Embryophyta subkingdom down to monocotyledonous and dicotyledonous plants. (3 marks)

SECTION B: ANSWER ANY OTHER TWO QUESTIONS

2. a) Draw and illustrate any five different forms of bacteria, giving examples of each form illustrated. (10 marks)
- b) Discuss the economic importance of fungi. (10 marks)
3. a) Describe the asexual spore production methods in algae. (10 marks)
- b) Discuss the life-cycle of *Rhizopus stolonifer*. (10 marks)
4. a) Discuss the economic importance of Bryophytes? (10 marks)
- b) Illustrate the life-cycle of a pteridophyte. (10 marks)
5. a) Discuss how Gymnosperms are of great use to humans. (10 marks)
- b) Describe the features used to differentiate Gymnosperms and angiosperms. (10 marks)