

ZOO 200E  
SYSTEMATICS AND TAXONOMY (PLANTS)



OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

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## UNIVERSITY EXAMINATIONS

### 2021/2022 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER MAIN EXAMINATION

## FOR THE DEGREE OF BACHELOR OF EDUCATION SCIENCE

COURSE CODE: ZOO 200E

COURSE TITLE: SYSTEMATICS AND TAXONOMY  
(PLANTS)

DATE: 2<sup>ND</sup> FEBRUARY 2022

TIME: 9.00 AM-12.00 PM

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### INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

ZOO 200E  
SYSTEMATICS AND TAXONOMY (PLANTS)

**REGULAR – MAIN EXAM**

**ZOO 200E: SYSTEMATICS AND TAXONOMY (PLANTS)**

**STREAM: BED (SCIENCE)**

**DURATION: 3 Hours**

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**INSTRUCTIONS TO CANDIDATES**

- i. Answer **ALL** questions from section A and any **FOUR** from section B.
- ii. Diagrams should be used whenever they serve to illustrate the answer.
- iii. Do not write on the question paper.

**SECTION A (30 MARKS)**

**Question One**

- a) Describe organization as a feature of living things. (2 Marks)
- b) Explain the significant of metabolic reactions that occur in living organisms. (2 Marks)
- c) Differentiate between a genus and a species level of classification. (2 Marks)
- d) Discuss three categories of animals based on the presence/absence of coelom. (9 Marks)

**Question Two**

- a) What are sub-species? (2 Marks)
- b) Explain two possibilities for which a scientific name may become invalid. (6 Marks)
- c) Differentiate between artificial and natural classification. (4 Marks)
- d) Explain the problems of using a dichotomous key. (3 Marks)

**SECTION B (36 MARKS)**

**Question Three**

- a) Discuss four principles of classification. (8 Marks)
- b) Outline any two rules governing the principle of priority in taxonomic ranking. (2 marks)

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**Question Four**

- a) Discuss two types of symmetry in organisms. (4 Marks)
- b) Examine three modifications of stems that are of interest to taxonomists. (6 Marks)

**Question Five**

- a) Discuss any three types of modified leaves. (6 Marks)
- b) Explain two aims of biosystematics. (4 Marks)

**Question Six**

- a) Describe any six rules used for scientific naming of animals. (6 marks)
- b) Outline the merits of Benthan's and Hooker's classification of plants. (4 Marks)

**Question Seven**

- a) Explain the six features of International Code of Botanical Nomenclature. (6 Marks)
- b) Examine four classical taxonomic tools. (4 Marks)

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