NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES

Department of Agriculture and Natural Resources Sciences

QUALIFICATION: Bachelor of Agriculture	
QUALIFICATION CODE: 07BAGR	**LEVEL:** NQF Level 5
COURSE: Introduction to General Biology	**COURSE CODE:** IBI511S
DATE: July 2019	**SESSION:**
DURATION: 3 Hours	**MARKS:** 100

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S):	Mr C. L. Akashambatwa
MODERATOR:	Mrs. L. Theron

INSTRUCTIONS
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Examination paper.
2. Examination script.

THIS QUESTION PAPER CONSISTS OF 3 PAGES (INCCLUDING THIS FRONT PAGE)

Question 1

1.1. Define Prokaryotes and Eukaryotes. (4)

1.2. What is crossing over? In which period of meiosis does this event occur and what is its importance? (5)

1.3. What are the functions of a nucleus? (5)

1.4. List the differences between plant and animal cells in a table format (15)

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Question 2

2.1. What is a meristem, where are meristems located in plants and what are their functions? (4)

2.2. Distinguish among monoecious, dioecious, flowers and give example of each (4)

2.3. In the Etosha National park, it is found that some animals occur more abundantly than other. Which animals would you expect to see more, the Lion or the Oryx? Give a reason for your answer. (3)

2.4. Cells are the basic structural units of living organism. Explain what that means (5)

2.5. Why is a mushroom regarded as fungus rather than a plant? (3)

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Question 3

3.1. Explain the functions of a vacuole in the cell (6)

3.2. Draw a transverse section of a dicot leaf and label it correctly. (10)

3.3. Why is the transfer of energy in an ecosystem referred to as energy flow, not energy cycling? (2)

3.4. Distinguish between the functions of mitosis and meiosis. (10)

3.5 Plants pollinated by wind have various adaptations/features to facilitate that. Provide the different features as well as the reason for each. (8)

[36]

Question 4

4.1. Distinguish between gymnosperm and angiosperm plants. (5)

4.2. Name the three sources of genetic variation and briefly explain each. (6)

4.3. Name and explain the three classes of RNA. (5)

[16]

[TOTAL 100]