Ecology Laboratory (biol366): Example Final Exam Questions

INSTRUCTIONS

This final exam is approximately xx% of your BIOL366 course grade. It is comprehensive of the entire course. This exam is comprised of multiple choice, short answer, and essay questions. Please answer the questions in the space provided. Ensure that **your first and last name and Banner ID number are on the last page of the exam**. You have until the end of the class period to complete the exam.

Scoring Rubric for the Short Answer/Essay Portion

Level of Achievement	Characteristics
Quality (100%)	- Demonstrates an accurate and complete understanding of the question or problem - Addresses the question or problem - States a correct, relevant, and justifiable answer - Presents arguments/evidence in a clear way. Uses examples/data to support arguments - Concise
Adequate (75%)	- Demonstrates minimal understanding of the question or problem, but still accurate. - Does not address the question explicitly, but does tangentially - States a somewhat relevant answer - Examples/data to support arguments is weak - Some correct argument provided
Needs Improvement (25%)	- Does not demonstrate understanding of the question or problem, inaccurate - Does not address the question - States no relevant argument, or no evidence or support provided - Not clear or concise
No Answer (0 pts)	

Exam Structure

There are 2 multiple-choice questions worth 2 points each, 6 short answer questions worth 5 points each, 1 short answer questions worth 6 points, and 4 short answer/essay questions worth 15 points each on this exam for a total of 100 points. Please clearly circle the best answer for the multiple choice questions. Please use the space provided to address the short answer and essay questions, which will be evaluated using the rubric on page 1 of this exam.

1. (2 pts.) Given your study habits and specific preparations, what grade do you expect to make on this exam? (all answers are correct)

    A) A   D) D
    B) B   E) F
    C) C

4. (5 pts.) Describe the primary expected advantage and disadvantage of increasing the number of samples in an experiment?

5. (5 points) Explain why you used the Shapiro-Wilk test.

12. State a hypothesis corresponding to the question: How does human activity on Wrightsville Beach affect dune plants? (5pts)

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9. (15 points) Design a sampling protocol to determine the population dispersion of wiregrass in the forest on campus. Describe your methods in detail.

10. (5 points) Which statistical test we learned about this semester would be most appropriate to test for possible statistical differences between two estimated population densities? Why?

25. A scientist decided to conduct a t-test on her measurements of turtle carapace length data from two ponds, producing the following table:

t statistic	0.93
t critical	2.31
P-value	0.38
α-value	0.05

Did she find a significant difference in carapace length? Explain.

11. (5 points) The equilibrium hypothesis of island biogeography explains what observed relationship? Draw a graph to illustrate your answer.

Your Identification

BANNER ID: 850_____

My signature below affirms that the work on this examination is entirely my own in accordance with
   the academic honesty provisions outlined in the UNCW Student Handbook.

SIGNITURE: _____

PRINTED NAME: _____