CS 31
Midterm Info

Scheduling

- Midterm is in SCI 199 during normal class time (2:40 – 3:55) on Thursday, March 5.

- Tomorrow's lab session will be Q&A review.
  - Also time to work on, get help on maze lab.

Format

- A few important definitions.

- A few short answer questions.

- Two short essay questions.

- A few multi-part depth questions.

Hints

- You don't need to shotgun me with info.
  - If it says to be brief, don't write a ton.
  - I will grade all of what you write.

- I generally try to specify approximately how much text I'm looking for.
  - When it's not explicit, you can usually guess by the point value of the question.

Hints

- For many questions, the point value roughly corresponds to how many things I'm looking for in your response.
  - 3 points: describe 3 things…

- Numerical questions: showing work can help you get partial credit

- Explanation/Why questions: I'm generally looking for a text answer. You can use examples/numbers as supporting evidence though.

Examples:

Examples: Cacti

Definitions

- Response: ~1-2 sentences

- Cactus example:

  spine

  Cactus spines are modified leaf structures that provide protection against herbivores and aid in the reduction of water loss.

Short Answer

- Response: a few words to one sentence

- Cactus example:

  In class, we talked about several common cactus body types. Choose three, and briefly describe their characteristics.

  Columnar – Tall, large, sparse columns, like the Saguaro

  Globular – Singular barrel-like shape

  Clumping – Group of small, usually round stems closely clustered together

Short Essay

- Response: One paragrah (~3-4 sentences)

- Cactus example:

    In class, we said that cacti are crassulacean acid metabolisim (CAM) plants. What does that mean, and why is it beneficial to cacti?

    CAM is a metaboloic adaptation that helps plants cope with harsh, arid conditions. Unlike most other plants, CAM plants perform CO_2 gas exchange at night, rather than during the day. It's beneficial because to cacti because they can keep their stomata closed during hot desert days to reduce evaporation and conserve water.

Multi-Part

- Response: depends on part and point value
  - *Usually* earlier Q's are fewer points and shorter

Cactus Classification

A. (1 pt) What is the relationship between cacti and succulents?

B. (2 pt) Why is it difficult to classify cacti?

C. (4 pt) How have genetic markers been used to classify cacti?

Multi-Part

A. (1 pt) What is the relationship between cacti and succulents?

All cacti are succulents, not all succulents are cacti.

B. (2 pt) Why is it difficult to classify cacti?

Cacti pollination is not selective, leading to many hybrid species for which there is no classification. Furthermore, different groups using different naming systems, adding more confusion to cactus classification. (ex optional)

C. (4 pt) How have genetic markers been used to classify cacti?

(I have no idea.)

Questions?