PLSCI 1150 Quiz 1: Study Guide and Information, Spring 2024

The following is meant as a general guide for what and how to study, but note that the test is neither limited to nor fully inclusive of the topics listed below. Anything we covered in class, including the guest lecture by Professoe Niklas, and the assigned book chapters that are related, are fair game on this quiz—as I've indicated, and fair game for you when you submit your questions. Other helpful resources include the posted PowerPoints and past homework assignments. Look too to the ChatGPT and ChatGPT4 or Google and Google Scholar for helpful information. The topics below will be supplemented for study by the example quiz questions that will convey to you the expected level of understanding. In other words, the quiz questions will be guides to studying and give you an idea of the depth of knowledge you should have on any of the subjects below.

We will count the questions you submit as 50% of the Quiz grade and submitted questions will constitute 50% of the quiz—so for example, if there are 20 quiz questions, 10 will be selected from those submitted. And we will provide the other 10. In addition, it has been my habit to have some extra credit questions and so it will be possible to get more than 100% on the quiz.

Remember *Quiz 1* will include topics covered up until the quiz- except for the rules of evidence that we have just started.

The topics covered by Quiz 1:

Civil vs. Criminal Cases—the difference

The Nature and Value of Plant Based Evidence

- To know the potential forensic information that may be derived from plant based evidence
- Knowing the kinds of plant forensic evidence
- To know the major features of plant forensic evidence that make such evidence useful and informative in the context of crimes or trials: dispersibility and its correlates, specificity—the ability to identify the species from the evidence, and durability—
- To know the major groups of plants and their evidentiary potential (including relative dispersibility)
- To know the means of dispersal in major plant groups

Plant Biology

- To understand the categories that have been established to identify the locations where specific kinds of plants grow from Biome to niche.
- Be able to recognize major parts of a plant
    ◦ Know how to recognize in section: apical meristem, node, axillary bud, etc. from longitudinal sections

- Be able to recognize the major components of a plant stem (depending on the species) in cross section
    ◦ Vascular bundle (xylem and phloem), pith, epidermis, etc.
    ◦ Herbaceous monocot vs woody dicot

- ◦ Primary vs secondary growth
- To note the names of embryonic tissues produced by the apical meristerm (protoderm, procambium, ground tissue)
- Be familiar with the life cycles, but no need to memorize them
  - ◦ Understand broadly the evolutionary progression of major taxonomic groups that led to vascular plants
  - ◦ Understand broadly the dispersible implications of the evolutionary progression to pollen grains/seeds
  - ◦ Recognize N vs 2N dominance of plant forms .
  - ◦ Be familiar with the terms sporophyte and gametophyte
  - ◦ Be familiar with the functions of archegonia (egg production) and antheridia (sperm production).

Guest Lectures

- Niklas (Integrity of wood in civil case)

Lindbergh Trial and Exercise

- General facts of the kidnapping
- Major features of the trial
- Best prosecution evidence including details of the primary evidence--wood
- Best Defense evidence

Not on the Exam:

Anything about legal procedures evidence etc. that we have just started to look at

Someday we will apply what we learned in evaluating scenarios that are set forth so that you can address questions like this:

- Given a scenario with evidence, and facts of the case you may be asked to determine:
  - ◦ Who is a likely suspect?
  - ◦ Is this a secondary crime scene/location?
  - ◦ If a murder, was it homicide or accidental?
  - ◦ Impact of Relevant Legal issues?
  - ◦ Are there holes in the defense's or prosecution's cases?
  - ◦ Or you may be asked to come to a conclusion and to defend it based on the evidence/background given the bases for a trial.