***Laboratory Manual for Anatomy and Physiology, 6e* (Wood)**

**Main Exercises**

**Exercise 1: Laboratory Safety**

**Exercise 1: Pre-Lab Questions**

1) All of the following are necessary guidelines to ensure that the laboratory is a safe environment EXCEPT which statement?

A) Only students enrolled in the course are allowed in the laboratory.

B) No eating is allowed in laboratory; however, drinks are allowed.

C) Never perform an experiment without your instructor's permission.

D) Wear shoes at all times in the laboratory.

Answer: B

Explanation:

A) Anyone who is not enrolled in the course is not allowed to enter the laboratory.

C) Experiments should not be started until the instructor gives permission. Also, changes to any experiment that appear in this manual are not allowed.

D) No open-toed shoes should be worn in the laboratory.

2) The following guidelines should be followed when working with body fluids EXCEPT which statement?

A) Clean up all body-fluid spills with soap and water.

B) Work only with your own body fluids.

C) Always wear gloves and safety glasses when working with body fluids.

D) Always assume that a body fluid can infect you with a disease.

Answer: A

Explanation:

B) Collecting and experimenting on body fluids from another individual is beyond the scope of this course.

C) Never allow body fluids to touch your unprotected skin, therefore one should always wear gloves and safety glasses.

D) Putting this safeguard into practice will prepare you for working in a clinical setting.

3) The following guidelines will protect you from chemical hazards EXCEPT which statement?

A) Always use a spoon or spatula to take a dry chemical from a large storage container.

B) Most chemicals are safe to handle with bare hands.

C) Do not return unused portions of chemicals to their original containers.

D) When mixing solutions always add a chemical to water; never add water to the chemical.

Answer: B

Explanation:

A) Never shake a dry chemical out of its jar; this may result in dumping the entire container of chemical onto yourself and/or work station.

C) Always dispose of excess chemicals as directed by your instructor.

D) By adding a chemical to water you reduce the chance of a strong chemical reaction occurring.

4) The main instrument that you will use to study anatomy is a \_\_\_\_\_\_\_\_.

A) water bath

B) scalpel

C) microscope

D) microcentrifuge

Answer: C

Explanation:

A) A water bath is used to incubate laboratory samples.

B) A scalpel is used only in dissections.

D) A microcentrifuge is used to study blood and urine samples.

5) All of the following are considered to be hazardous wastes EXCEPT \_\_\_\_\_\_\_\_.

A) blood

B) a salt solution

C) a preserved specimen

D) urine

Answer: B

Explanation:

A) Blood is considered to be a hazardous waste.

C) Preservatives used to preserve animal specimens are irritants and are considered to be a hazardous waste.

D) Urine is a body fluid and is considered a hazardous waste.

**Exercise 1: Post-Lab Questions**

1) All of the following are considered hazardous wastes EXCEPT \_\_\_\_\_\_\_\_.

A) urine

B) broken glass

C) a preserved specimen

D) a salt solution

Answer: D

Explanation:

A) Urine is a body fluid and therefore is considered to be a hazardous waste.

B) Broken glass is considered hazardous waste and needs be disposed properly.

C) Preservatives are considered irritants and are considered hazardous waste.

2) All of the following are proper guidelines for using a microscope EXCEPT which statement?

A) Use one hand to carry the microscope.

B) Use only special lens paper to clean the lenses of the microscope.

C) Unplug the microscope by pulling on the plug, not by tugging on the electrical cord.

D) Use only cleaning solution provided by your laboratory instructor to clean the microscope lenses.

Answer: A

Explanation:

B) Other papers and cloths may scratch the optical coatings on the lenses.

C) Pulling on the cord may loosen wires inside the cord, which can cause an electrical short and possibly an electrical shock to anyone touching the cord.

D) An unapproved cleaning agent may dissolve the adhesives used in the lenses.

3) Which of the following can be disposed of in the sink?

A) salt solution

B) preservative

C) blood

D) saliva

Answer: A

Explanation:

B) Preservatives are considered to be hazardous waste and need to be properly disposed of.

C) Blood is a body fluid and is considered hazardous waste.

D) Saliva is a body fluid and is considered hazardous waste.

4) Which of the following require wearing gloves to protect your skin?

A) microscope

B) water bath

C) chemicals

D) none of the above

Answer: C

Explanation:

A) Using a microscope does not require one to wear gloves.

B) Using a water bath does not require one to wear gloves.

D) One of the above answers is the correct answer.

5) Which of the following is a common piece of equipment used in dissecting preserved specimens?

A) microcentrifuge

B) microscope

C) water bath

D) scalpel

Answer: D

Explanation:

A) A microcentrifuge is used to separate blood or urine samples.

B) A microscope is used for viewing prepared tissues on slides.

C) A water bath is used to incubate laboratory samples at specific temperatures.