***Laboratory Manual for Anatomy and Physiology, 5e* (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) No eating is allowed in the laboratory, however drinks are allowed.

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

C) Wear shoes at all times in the laboratory.

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

Answer: A

Explanation:

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

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

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

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

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

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

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

D) Work only with your own body fluids.

Answer: C

Explanation:

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

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

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

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

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

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

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

D) Do not return unused portions of chemicals to their original container.

Answer: A

Explanation:

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

C) 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.

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

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 a hazardous waste EXCEPT \_\_\_\_\_\_\_\_.

A) blood

B) urine

C) a preserved specimen

D) a salt solution

Answer: D

Explanation:

A) Blood is considered to be a hazardous waste.

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

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

**Exercise 1: Post-lab Questions**

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

A) broken glass

B) urine

C) a salt solution

D) a preserved specimen

Answer: C

Explanation:

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

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

D) Preservatives are considered irritants and are considered a 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 cleaning solution provided by your laboratory instructor to clean the microscope lenses.

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

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

Answer: A

Explanation:

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

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

D) 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.

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

A) saliva

B) blood

C) salt solution

D) preservative

Answer: C

Explanation:

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

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

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

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

A) water bath

B) microscope

C) chemicals

D) none of the above

Answer: C

Explanation:

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

B) Using a microscope 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) microscope

B) microcentrifuge

C) water bath

D) scalpel

Answer: D

Explanation:

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

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

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