

Forensic Science
Mrs. Smith

Name KEY
Date _____

MIDTERM STUDY GUIDE

Use your old tests to find the answers to the following statements / questions.

Chapter 1 Test – Introduction to Forensics:

1. The idea that when someone comes into contact with something else that trace evidence will be left behind that can prove the encounter is called the Locard Exchange Principle.
2. Branch of medicine dealing with the anatomy and development of teeth is called Odontology.
3. Branch of science concerned with poisons, their nature, effects and antidotes is called Toxicology.
4. The scientific study of disease and its causes, processes and effects is called Pathology.
5. The study of the structure of living things is called ANTHROPOLOGY.
6. They collect physical evidence at crime scenes, receive it at the lab, perform tests and many times testify in court Criminalistics.
7. The study of dealing with the genetic aspect of human development and its physical variations PHYSICAL ANTHROPOLOGY.
8. To study everything there is to know about law and its place in all of society jurisprudence.
9. The application of science to the criminal and civil laws that are enforced by police agencies in a criminal justice system Forensic Science.
10. The database of DNA profiles collected from crime laboratories CODIS.

Chapter 2 Test – Physical Evidence:

1. The medical dissection and examination of a body in order to determine the outcome of death Autopsy.

2. Occurs after death and results in the stiffening of the body parts in the position they are in when death occurs Rigor Mortis.
3. The uncontaminated surface material close to an area where physical evidence has been deposited Substrate Control.
4. Occurs after death and results in the settling blood in areas of the body closest to the ground Livor Mortis.
5. Refers to postmortem changes that cause the body to lose heat Algor Mortis.
6. Taken from the inner cheek to collect cells for use in DNA determination Buccal Swab.
7. This type of scientists analyze bones ANTHROPOLOGIST.
8. These scientists use insects to aide in legal investigations Entomologists.
9. What three things can anthropologists determine from examining skeletal remains? sex, race + stature.
10. The three types of fingerprints are whorl, loop and arch.
11. What three methods are used to preserve a crime scene? photography, sketching, note taking.
12. The time between death and corpse discovery is called post mortem interval.

Chapter 3 Test – Properties of Matter:

1. The separation of light into wavelengths Dispersion.
2. The bending of light waves as it passes from one place to another Refraction.
3. The ratio of the speed of light in a vacuum to its speed of the given substance Refractive Index.
4. The number of waves that pass a given point Frequency.
5. A solid with an unregular arrangement of atoms Amorphous solid.

6. When a solid turns directly into a gas sublimation.
7. Colored light ranging from red to violet visible light.
8. The distance between the crests or troughs of a wave
wavelength.
9. The entire range of radiation energy from the most energetic cosmic rays to the least energetic radio waves electromagnetic spectrum.
10. The amount of visible light that is reflected off of an object
color.
11. The color associated with very low frequencies red.
12. The amount of matter in a substance mass.
13. The color associated with very high frequencies violet.
14. The two properties forensic scientists use when comparing glass fragments are
DENSITY and REFRACTIVE INDEX.
15. The amount of matter in a substance and the effects of gravity on that object is called weight.
16. The 3 R Rule states that
Radial cracks form a Right angle on the Reverse side of the force.

Chapter 5 Test -Drugs:

1. A drug or substance that lessens or eliminates pain
Analgesic.
2. Drugs known as downers because they relax the user, create a sense of well being and produce sleep Barbituates.
3. Synthetic stimulants known as uppers or speed
Amphetamines.
4. A substance that induces change in mood, attitude, thought processes and perceptions Hallucinogens.

5. A type of narcotic drug in which most narcotic drugs are from
opiates.
6. Tests to identify specific substances by the color and morphology of crystals formed when the substance is mixed with specific reagents
microcrystalline.
7. A single test that specifically identifies a substance
Confirmation test.
8. An analytical method for identifying a substance by exposing it to a specific type of electromagnetic radiation spectrophotometry.
9. Conditioned use of a drug caused by underlying emotional needs
Psychological Dependence.
10. A means of separating and tentatively identifying the components of a mixture
Chromatography.
11. A test that is nonspecific and preliminary in nature
Screening test.
12. Physiological need for a drug that has been brought about by its regular use
Physical Dependence.
13. The most widely abused drug in the US is Alcohol.
14. The most widely used illicit drug in the US is Marijuana.
15. The two drugs associated with sexual assault, rape and robbery are Rohypnol and Ectasy.
16. Marijuana can be used medically to relieve pain from anticancer meds and glaucoma.
17. The two most common types of chromatography techniques are Gas and Thin Layer.

Chapter 6- Toxicology:

Vocabulary to know:

Capillary

Anticoagulant

Catalyst

PH Scale

Metabolism

Veins

Oxidation

Acid

Preservative

Toxicologist

Arteries

Fuel Cell Detector

Base

Absorption

Excretion

See toxicology
Quiz

Other Concepts:

1. What type of alcohol is most widely abused in Western Countries? *Ethyl*
2. Where in the body is alcohol first absorbed? *Stomach*
3. List the four main factors that determine the rate at which alcohol is absorbed.
4. What is alcohol eventually oxidized into? *Carbon Dioxide & Water*
5. What organ does the majority of oxidation of alcohol? *Liver*
6. List the three ways that alcohol is excreted unchanged from your body. *urine, sweat & breath*
7. List two types of common alcohol tests. *blood & breath*
8. How does a fuel cell detector work?
9. What are some examples of field sobriety tests? *Walk & turn, breathalyzer, nystagmus exam, stand on one foot & count*
10. What is the current legal blood alcohol measure of drunk driving in the United States? *0.08*
11. What is the current implied - consent law on operating a motor vehicle and engaging in sobriety tests? *If you refuse to take a alcohol test you will go to jail & lose your license for 6 months to 1 yr*

3.
 - a) Quantity of alcohol
 - b) Strength of the alcohol
 - c) Speed at which you drink the alcohol
 - d) Whether or not your stomach is empty

8. Fuel cell detector combines your breath, alcohol & oxygen to form acetic acid which then produces an electric current to show the