

Anatomy and Physiology II  
Practice Exam 1

1. What glands produce steroid hormones?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  
2. What gland produces an amino acid hormone that is fat soluble and crosses cell membranes?
  - a. Gland: \_\_\_\_\_
  - b. Hormone(s): \_\_\_\_\_
  
3. What is the significance of hormones being fat soluble (steroid or steroid like)?  
\_\_\_\_\_  
\_\_\_\_\_
  
4. Contrast how nerve signals work in the body compared to how hormones work in the body? Discuss speed as well as duration?
  - a. Hormones: \_\_\_\_\_  
\_\_\_\_\_
  - b. Nerves: \_\_\_\_\_  
\_\_\_\_\_
  
5. Fill in the steps for how steroid or steroid like hormones work at the cellular level. (What binds to what, identify secondary messengers if any, what activates what and how, how is the cell effected)?
  - a. \_\_\_\_\_  
\_\_\_\_\_
  - b. \_\_\_\_\_  
\_\_\_\_\_
  - c. \_\_\_\_\_  
\_\_\_\_\_
  - d. \_\_\_\_\_  
\_\_\_\_\_

6. Fill in the steps for how amino acid (protein, peptide and amino acid) type hormones work at the cellular level. (What bonds to what, identify secondary messengers if any, what activates what and how, how is the cell effected)?

- a. \_\_\_\_\_  
\_\_\_\_\_
- b. \_\_\_\_\_  
\_\_\_\_\_
- c. \_\_\_\_\_  
\_\_\_\_\_
- d. \_\_\_\_\_  
\_\_\_\_\_
- e. \_\_\_\_\_  
\_\_\_\_\_

7. What are prostaglandins, how are they different from hormones, name two medications which inhibit them?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. For the following hormones, know where they are produced, the target tissues they affect, what effects they have, and how they are regulated. Know the hormone related diseases and their symptoms:

a. Human Growth Hormone (hGH)

- i. Gland: \_\_\_\_\_
- ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_
- iii. Release Trigger: \_\_\_\_\_
- iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
- v. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
- vi. Effect: \_\_\_\_\_
- vii. Inhibition Trigger: \_\_\_\_\_
- viii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

ix. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

x. Effect: \_\_\_\_\_

xi. Diseases: \_\_\_\_\_

b. Follicle Stimulating Hormone (FSH)

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_

\_\_\_\_\_

iii. Release Trigger: \_\_\_\_\_

\_\_\_\_\_

iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

v. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

vi. Effect: \_\_\_\_\_

\_\_\_\_\_

vii. Inhibition Trigger: \_\_\_\_\_

\_\_\_\_\_

viii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

ix. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

x. Effect: \_\_\_\_\_

xi. Diseases: \_\_\_\_\_

c. Luteinizing Hormone (LH)

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_

\_\_\_\_\_

iii. Release Trigger: \_\_\_\_\_

\_\_\_\_\_

iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

v. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

vi. Effect: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

vii. Inhibition Trigger: \_\_\_\_\_  
\_\_\_\_\_

viii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

ix. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

x. Effect: \_\_\_\_\_

xi. Diseases: \_\_\_\_\_

d. Prolactin (PRL)

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Release Trigger: \_\_\_\_\_

iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

v. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

vi. Effect: \_\_\_\_\_

vii. Inhibition Trigger: \_\_\_\_\_

viii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

ix. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

x. Effect: \_\_\_\_\_

xi. Diseases: \_\_\_\_\_

e. Melanocyte Stimulating Hormone (MSH)

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Release Trigger: \_\_\_\_\_

iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

v. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

vi. Effect: \_\_\_\_\_

vii. Inhibition Trigger: \_\_\_\_\_

viii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

ix. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

x. Effect: \_\_\_\_\_

xi. Diseases: \_\_\_\_\_

f. Oxytocin (OT)

- i. Gland: \_\_\_\_\_
- ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_
- iii. Release Trigger: \_\_\_\_\_
- iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
- v. Effect: \_\_\_\_\_
- vi. Inhibition Trigger: \_\_\_\_\_
- vii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
- viii. Effect: \_\_\_\_\_
- ix. Diseases: \_\_\_\_\_

g. Antidiuretic Hormone (ADH)

- i. Gland: \_\_\_\_\_
- ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_
- iii. Release Trigger: \_\_\_\_\_
- iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
- v. Effect: \_\_\_\_\_
- vi. Inhibition Trigger: \_\_\_\_\_
- vii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
- viii. Effect: \_\_\_\_\_
- ix. Diseases: \_\_\_\_\_

h. Melatonin

- i. Gland: \_\_\_\_\_
- ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_
- iii. Release Trigger: \_\_\_\_\_  
\_\_\_\_\_
- iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
- v. Effect: \_\_\_\_\_
- vi. Inhibition Trigger: \_\_\_\_\_

- vii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
- viii. Effect: \_\_\_\_\_
- ix. Diseases: \_\_\_\_\_
- i. Triiodothyronine (T3) / Thyroxine (T4)
  - i. Gland: \_\_\_\_\_
  - ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_
  - iii. Release Trigger: \_\_\_\_\_
  - iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
  - v. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
  - vi. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
  - vii. Effect: \_\_\_\_\_
  - viii. Inhibition Trigger: \_\_\_\_\_
  - ix. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
  - x. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
  - xi. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
  - xii. Effect: \_\_\_\_\_
  - xiii. Diseases: \_\_\_\_\_
- j. Calcitonin
  - i. Gland: \_\_\_\_\_
  - ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_
  - iii. Release Trigger: \_\_\_\_\_
  - iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
  - v. Effect: \_\_\_\_\_
  - vi. Inhibition Trigger: \_\_\_\_\_
  - vii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_
  - viii. Effect: \_\_\_\_\_
  - ix. Diseases: \_\_\_\_\_
- k. Parathyroid Hormone (PTH)
  - i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Release Trigger: \_\_\_\_\_

iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

v. Effect: \_\_\_\_\_

vi. Inhibition Trigger: \_\_\_\_\_

vii. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

viii. Effect: \_\_\_\_\_

ix. Diseases: \_\_\_\_\_

1. Aldosterone

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Release Trigger: \_\_\_\_\_

iv. Inhibition Trigger: \_\_\_\_\_

v. Steps in release process:

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_
5. \_\_\_\_\_  
\_\_\_\_\_
6. \_\_\_\_\_  
\_\_\_\_\_

vi. Diseases: \_\_\_\_\_

m. Cortisol

n. Corticosterone

o. Cortisone

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Release Trigger: \_\_\_\_\_

iv. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

v. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

vi. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

vii. Effect: \_\_\_\_\_

viii. Inhibition Trigger: \_\_\_\_\_

ix. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

x. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

xi. Gland: \_\_\_\_\_ Hormone: \_\_\_\_\_

xii. Effect: \_\_\_\_\_

xiii. Diseases: \_\_\_\_\_

p. Dehydroepiandrosterone (DHEA)

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Diseases: \_\_\_\_\_

q. Epinephrine

r. Norepinephrine

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Release Trigger: \_\_\_\_\_

iv. Diseases: \_\_\_\_\_

s. Glucagon

i. Gland: \_\_\_\_\_

ii. Tissue/Effects: \_\_\_\_\_



\_\_\_\_\_  
\_\_\_\_\_

- iii. Release Trigger: \_\_\_\_\_
- iv. Inhibition Trigger: \_\_\_\_\_
- v. Diseases: \_\_\_\_\_

t. Insulin

- i. Gland: \_\_\_\_\_
- ii. Tissue/Effects: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

- iii. Release Trigger: \_\_\_\_\_
- iv. Inhibition Trigger: \_\_\_\_\_
- v. Diseases: \_\_\_\_\_

u. Somatostatin

- i. Gland: \_\_\_\_\_
- ii. Tissue/Effects: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

- iii. Release Trigger: \_\_\_\_\_
- iv. Inhibition Trigger: \_\_\_\_\_
- v. Diseases: \_\_\_\_\_

v. Pancreatic Polypeptide

- i. Gland: \_\_\_\_\_
- ii. Tissue/Effects: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

- iii. Release Trigger: \_\_\_\_\_
- iv. Inhibition Trigger: \_\_\_\_\_
- v. Diseases: \_\_\_\_\_

9. For the following disease identify the hormone related to the disease and describe the condition:

a. Dwarfism

- i. Hormone: \_\_\_\_\_
- ii. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

b. Giantism

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

c. Acromegaly

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

d. Diabetes insipidus

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

e. Cretinism

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

f. Myxedema

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

g. Graves Disease

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

h. Goiters

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

i. Hypoparathyroidism

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

j. Addison's Disease

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

k. Cushing's Syndrome

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

l. Diabetes Mellitus Type I

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

m. Diabetes Mellitus Type II

i. Hormone: \_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_