UNIT 1

1. Arrange the following structure in order from smallest to largest:

Tissue, cell, organ system, organ, organism

Cell – Tissue – Organ – Organ System - Organism

1. A group of cells organized into a functional unit is called \_\_\_\_.

Tissue

1. With the exception of a few body fluids, most have a pH around \_\_\_\_.

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1. This type of tissue is protective. \_\_\_\_\_ Epithelial
2. What type of tissue is blood and bone? Connective
3. Which body cavity contains the lungs and heart. Thoracic

NERVOUS SYSTEM

1. What organs are in the central nervous system. Brain & spinal cord
2. White matter of the nervous system is \_\_\_\_\_\_\_\_\_, grey matter is \_\_\_\_\_\_\_\_\_.

Myleinated, nonmyleinated

1. Neurons that carry information from the CNS to the PNS are called \_\_\_\_\_\_. Efferent, motor

Neurons that carry information from the PNS to the CNS are called \_\_\_\_\_\_. Afferent, sensory

1. The reflexes of the body are part of the \_\_\_\_\_\_ nervous system. Autonomic
2. Fight or flight is a part of the \_\_\_\_ nervous system. Autonomic, sympathetic & peripheral
3. If a neuron has many Na+ outside as compared to the inside, making it “negative” on the inside it is said to be \_\_\_\_. Polarized

ENDOCRINE SYSTEM

1. What controls the pituitary gland? Hypothalamus
2. If a hormone cannot pass through the cellular nor nuclear membrane, a messenger is created called \_\_\_. cAMP
3. This gland is responsible for maintaining proper glucose levels in the body.

Pancreas

1. Which gland of the endocrine system regulated metabolic rate.

Thyroid, using thyroxine (hormone)

1. Lack of iodine may lead to this disorder.

Goiter

1. During emergency situations this hormone is released.

Adrenaline

CARDIAC SYSTEM

1. What chamber of the heart has the strongest contraction to move the oxygenated blood out of the heart to the body? Left ventricle
2. What large blood vessels bring deoxygenated blood into the heart? Vena cavas
3. What type of blood vessel is both strong and elastic? Artery
4. Infections generally result in an increase of this type of blood cell. Leukocytes or WBC
5. What is the primary job of RBCs? Carry oxygen using hemaglobin
6. If a person has A and B antigens and no antibodies, what is their blood type? AB+

RESPIRATORY SYSTEM

1. Where does the actual exchange of oxygen and carbon dioxide occur in the lungs? Alveoli
2. What structure protects the lungs from food going into them? Epiglottis
3. If the ribcage is raised, the diaphragm moves inferiorly and the intercostal muscles contract, what are you doing? Inhalation
4. The tube that leads from the pharynx to the lungs is the \_\_\_\_. Trachea
5. The breathing center of the brain is most sensitive to CO2 levels in the \_\_\_\_. Blood

SKELETAL SYSTEM

1. What type of bone has the greatest strength for support? Compact
2. Red marrow is where \_\_\_ is produced, yellow marrow provides an \_\_\_\_ reserve.

Blood cells, energy

1. A joint or articulation is where two \_\_\_\_ meet. Bones
2. In a developing fetus, the skeleton is made of \_\_\_\_\_. Cartilage
3. In bone the matrix is made of \_\_\_\_\_\_, so it is hard. Calcium
4. What type of joint is found in the hip and shoulder. Ball and socket

MUSCLE SYSTEM

1. What type of muscle is used to move bones? Skeletal
2. What connects muscle to bone? Tendons
3. The structural and functional unit of a muscle is the \_\_\_. Sarcomere
4. What are the two main proteins fibers found in muscle cells? Actin and myosin
5. When a muscle pulls a bone the point of attachment that does not move is called the \_\_\_\_\_.

The movable part is the \_\_\_\_. Origin, insertion

1. What are the 3 types of muscle? Smooth, cardiac and skeletal

DIGESTIVE SYSTEM

1. What are the 3 main nutrients our bodies need to survive?

Carbohydrates, proteins and lipids

1. Essential nutrients must be obtained through \_\_\_\_\_\_. Food
2. What are the 3 parts of the small intestine? Duodenum, jejunum and ileum
3. Chemical digestion uses these biological catalysts to breakdown food. Enzymes
4. Wavelike contractions that move food through the GI tract. Peristalsis
5. This type of nutrient begins breakdown in the stomach. Proteins

URINARY SYSTEM

1. List the 3 stages of urine formation in order. Filtration, Reabsorption & Secretion
2. How is urine different from the filtrate first formed in the Bowman’s capsule? Urine has more urea, uric acids than the filtrate, and less water.
3. What is the structural and functional structure of the kidney? Nephron
4. What is the role of the kidney?

Clean the blood

Maintain proper electrolyte/water balance

Maintain proper pH

REPRODCUTIVE SYSTEM

1. What structure produces sperm in a male? Testes
2. This where the sperm mature once produced? Epididymis
3. FSH and LH are produced by this part of the brain. Pituitary gland
4. Where does fertilization occur? Fallopian tube
5. Where does implantation occur? Uterus (endometrium)
6. Both sperm and egg have \_\_\_\_ chromosomes. 23 (haploid)

INTEGUMENTARY SYSTEM

1. List the epidermal layers in order from superficial to deep.

Stratum corneum, Lucindum, Granulosum, Spinosum, Basal

1. This layer produces fingerprints. Papillary layer
2. These cells produce skin and hair pigment. Melanocytes
3. What does the “rule of 9s” refer to? The volume of fluid lost by patients with 3rd degree burns.
4. Pimples and acne are a result of these overactive glands. Sebaceous
5. Sudoriforous glands are commonly called \_\_\_ glands. Sweat

DIAGRAM ANSWERS

1. Epiphysis
2. Spongy bone
3. Compact bone
4. A
5. B
6. E
7. H
8. Trachea
9. Primary bronchi
10. Stomach
11. Liver
12. Small intestine
13. Small intestine #12
14. Salivary gland
15. Gall bladder
16. Cerebrum
17. Cerebellum
18. Temporal lobe
19. Synaptic cleft
20. Neurotransmitters
21. Polarized
22. Depolarized
23. D
24. A
25. C
26. B
27. H
28. B
29. Nephron
30. C
31. A
32. B
33. A
34. C
35. #10
36. #11
37. #5
38. BLANK
39. Villi
40. Small intestine
41. Ovary
42. Ovulation
43. Corpus luteum
44. Graffian follicle