

Human Body Systems Exam

Test Number: _____

Do Not Write On This Test!***

Instructions: Fill out your scantron sheet *exactly* as listed on the whiteboard, or else you will lose 20 points. Also, if you fail to record the Test Number listed on the top of this test on your scantron, you will receive a deduction of 20 points from your final score on the exam. For each of the following questions, answer on the provided scantron sheet using a #2 pencil. Although there are only 100 problems, read each question and all of the answers carefully, (as some of the answers have a choice of 'all of the above'). ***If you communicate in any way with your classmate or 'look around' you will receive a zero, no exceptions.*** As soon you are finished, turn in your test and ***follow my instructions on what you are to do.*** Good luck!

The Circulatory System:

1. What is the purpose of the circulatory system?
 - a. to supply oxygen to the body's cells
 - b. to supply nutrients to the body's cells
 - c. to transport hormones and cellular waste products
 - d. to fight germs
 - e. all of the above
2. What type of blood vessel carries blood *away from* the heart (usually oxygenated)?
 - a. artery
 - b. capillary
 - c. vein
 - d. alveoli
 - e. lymphatic vessel
3. What type of vessel carries the blood *towards* the heart (usually deoxygenated blood)?
 - a. artery
 - b. capillary
 - c. vein
 - d. alveoli
 - e. lymphatic vessel
4. What is the structure and location of the capillaries?
 - a. thin walled, flattened shape; which carry blood from the heart.
 - b. walls are a single layer of cells which carry blood between arteries and veins.
 - c. thick muscular walls, which carry blood away from the heart.
 - d. thin walled, which carry blood to the heart.
 - e. thick walled and moves blood through the heart only
5. What is the *largest artery* in the body?
 - a. aortic artery
 - b. carotid artery
 - c. aorta
 - d. asitrocolic artery
 - e. alveoli
6. What type of circulation describes *the movement of blood between the heart and the lungs*?
 - a. pulmonary
 - b. systemic
 - c. cardiac
 - d. bronchi
 - e. none of the above
7. How many *chambers* are there in the human heart?
 - a. one
 - b. two
 - c. three
 - d. four
 - e. five
8. Blood travels through which of the following organs?
 - a. kidneys
 - b. liver
 - c. lungs
 - d. heart
 - e. all of the above
9. What is the *leading cause of death* in United States?
 - a. heart cancer
 - b. broken hearts
 - c. leukemia
 - d. heart disease
 - e. murder
10. *High blood pressure* is another name for _____.
 - a. hypertension
 - b. stroke
 - c. arteries
 - d. inferior vena cava
 - e. hyperglycemia
11. What builds up in the blood vessels that could cause a heart attack?
 - a. stress
 - b. tar
 - c. plaque
 - d. cells
 - e. glue
12. Another name for 'hardening of the arteries' is:
 - a. heart attack
 - b. hypertension
 - c. atherosclerosis
 - d. cancer
 - e. Hodgkin's
13. What can happen when the coronary artery leading to the *brain* gets 'clogged'?
 - a. stroke
 - b. lymphoma
 - c. leukemia
 - d. arthritis
 - e. anemia
14. What kind of *diet* causes heart disease?
 - a. vegetables
 - b. fruits
 - c. saturated fat
 - d. proteins
 - e. carbohydrates
15. How can you *prevent a stroke or heart attack*?
 - a. don't smoke
 - b. don't drink
 - c. keep blood cholesterol down
 - d. exercise
 - e. all of the above

Blood: A Component of the Circulatory System:

16. What type of blood cell *contains hemoglobin which carries oxygen* to all the cells in your body?
a. plasma b. white blood cells c. red blood cells d. platelets e. none of the above
17. What type of blood cell *destroys invading organisms or germs such as viruses, bacteria, fungi, and parasites*?
a. plasma b. white blood cells c. red blood cells d. platelets e. none of the above
18. What is the component (part) of blood that *clots and 'seals' the cuts in your skin*?
a. plasma b. red blood cells c. white blood cells d. platelets e. none of the above
19. What is the liquid part of blood that *carries nutrients, cell wastes, and all of the other types of cells that make up blood*? It makes up 55% of blood, and is made of 90-95% water.
a. plasma b. red blood cells c. white blood cells d. platelets e. none of the above
20. How much blood does the average adult have ?
a. 88 liters b. 6 gallons c. 6 liters d. 500 gallons e. 8 gallons
21. What is the blood disorder in which the victim *lacks enough red blood cells* (or the hemoglobin to make the red blood cells, or the iron to make the hemoglobin), therefore causing the person to be 'oxygen deficient'. It results in fatigue.
a. hemophilia b. anemia c. leukemia d. AIDS e. none of the above
22. What is the genetic blood clotting disorder in which the victim *lacks protein clotting factors that allow for cuts, abrasions, etc... to clot*? It results in continuous bleeding.
a. hemophilia b. anemia c. leukemia d. AIDS e. none of the above
23. What is a possible treatment for *anemia*?
a. surgery b. iron supplement pills c. lung medicine d. phosphorus e. calcium
24. What is a *cancer of the blood*, whereby too many white blood cells are being created, lessening the number of red blood cells in the blood.
a. hemophilia b. anemia c. leukemia d. AIDS e. none of the above

The Lymphatic System:

25. What '*disease-fighting*' system is the lymphatic system a part of?
a. respiratory b. cardiovascular c. digestive d. immune e. excretory
26. How does lymph move through the body?
a. pumped by the heart b. lymph moves down to the liver
c. by random muscular movement d. wavy movement e. none of the above
27. What are the two things that *lymph* is mostly made of?
a. white blood cells and red blood cells b. plasma and white blood cells
c. red blood cells and plasma d. platelets and plasma e. fats and proteins
28. What is the one system that the lymphatic system works most closely with?
a. circulatory b. respiratory c. nervous d. integumentary e. urinary
29. What do the lymphocytes (white blood cells) do to help us?
a. filters the lymph b. fight infection (bacteria, viruses...) c. produce lymph
d. make leukocytes e. digest food
30. What happens when your tonsils/lymph nodes swells up.
a. you are going to have a baby b. you are fighting an infection
c. you are about to have a heart attack d. nothing happens e. you are healthy
31. What is the lymphatic system disease in which the *lymphatic glands (and adenoids) enlarge, and the victim shows weakness, anorexia, loss of appetite, and spleen enlargement*?
a. hypertension b. heart disease c. bronchitis d. anorexia e. Hodgkin's disease

The Respiratory System:

32. What does the respiratory system do?
a. removes carbon dioxide from the body b. supplies oxygen to the body
c. pumps blood d. both a and b e. a, b, and c

33. What does the diaphragm do when we *inhale (breathe in)*?
a. tightens and moves up b. relaxes and flattens c. relaxes and moves up
d. contracts and flattens e. enlarges
34. What part of the respiratory system *brings food into the digestive system and air into the respiratory system*? a. trachea b. pharynx c. diaphragm d. lungs e. larynx
35. The *larynx* is also known as the _____.
a. voice box b. lungs c. bronchi d. diaphragm e. alveoli
36. What is the name of the *muscular flap* that prevents food from going into the lungs?
a. trachea b. pharynx c. larynx d. epiglottis e. duct
37. The *trachea branches into the* _____.
a. esophagus b. diaphragm c. bronchi d. nasal cavity e. alveoli
38. Which part of the respiratory system consists of *air sacs* with capillaries. This is where *gas exchange takes place between air in the lungs and the blood*?
a. bronchi b. alveoli c. bronchioles d. diaphragm e. epiglottis
39. What is one of the major symptoms of *asthma*?
a. vomiting b. nausea c. sore throat d. wheezing e. sneezing
40. What is a *major symptom of bronchitis*?
a. chest pain b. leg pain c. stomach pain d. neck pain e. headache
41. What non-cancerous disease is caused by smoking, and the victim has *trouble exhaling (breathing out)*?
a. emphysema b. influenza c. malaria d. yawning e. bronchious preventis
42. What is the leading *cause of lung cancer*?
a. cigarette smoke b. second hand smoke c. genetics d. cigar smoke e. radiation

The Nervous System:

43. What are the two systems that make up the nervous system?
a. the neuron and ganglion systems b. the central and peripheral nervous systems
c. the ganglion and spinal cord d. the axon and the neuron system
e. excretory and lymphatic
44. Which of the following does the nervous system do?
a. regulates the body's activities b. responds to stimuli c. transmits nerve impulses
d. activates muscles e. all of the above
45. What are the *the three primary types neurons (nerve cells)* called?
a. ganglion, spinal, sensory b. sensory, association, motor
c. sensory, axon, motor d. axon, dendrite, neurotransmitter e. spinal, axon, motor
46. What *fatty covering protects the axons* as they relay information, and allows for nerve impulses to travel faster along the axon?
a. neurons b. headache c. myelin sheath d. thoracic nerves e. melanoma
47. What *color* would best describe the brain tissue?
a. yellow-white b. pink-gray c. blue-purple d. green-brown e. red-orange
48. What part of the brain is the *center for rational thought, learning, memorizing, and reasoning*?
a. cerebellum b. cerebrum c. medulla d. hypothalamus e. spinal cord
49. What part of the brain is the center for most of your *motor skills and balance*?
a. cerebellum b. cerebrum c. medulla d. hypothalamus e. spinal cord
50. What hemisphere (side) of the brain is responsible for *logical reasoning, analytical, and math skills*?
a. right hemisphere b. left hemisphere c. medulla d. top e. none of the above
51. What hemisphere (side) of the brain is responsible for *creativity, emotions, art and music skills*?
a. right hemisphere b. left hemisphere c. medulla d. top e. none of the above
52. What does the skeletal system do for the central nervous system?
a. destroy it b. helps it function c. protects it d. a and c e. all of the above

53. What is the name of the nervous system disease in which the *protective membranes that surround the brain and spinal cord are attacked by a bacteria or virus*, and death can occur?
 a. asthma b. Alzheimer's c. meningitis d. emphysema e. Hodgkin's
54. What is one nervous system disease that causes *memory loss in old age*, and the inability to function independently?
 a. asthma b. Alzheimer's c. meningitis d. emphysema e. Hodgkin's

The Endocrine System:

55. The endocrine system uses what kind of *chemicals* secreted into the bloodstream from glands, which help to control and coordinate the body?
 a. enzymes b. helpers c. hormones d. targets e. none of the above
56. Which gland is the *master gland* in the system, under the control of the hypothalamus?
 a. pituitary b. pineal c. thyroid d. pancreas e. none of the above
57. What *gland is located in the neck*, and secretes hormones which regulate metabolism, body temperature, and weight?
 a. pancreas b. thyroid c. pituitary d. adrenal e. larynx
58. What glands sit on top of the kidneys, and produce the hormone *adrenaline (or epinephrine)*?
 a. thyroid b. adrenal c. pancreas d. pituitary e. nephron
59. Which organ is part of *both* the endocrine and digestive system?
 a. stomach b. large intestine c. pancreas d. small intestine e. appendix
60. What is the disorder caused by a lack of *iodine* in the victim's diet, causing the thyroid gland in the neck to enlarge?
 a. diabetes b. SAD c. goiter d. thyroiditis e. bulgus
61. Which hormone injections are used to treat *diabetes*?
 a. pygmatin b. myelin c. iodine d. insulin e. adrenaline

The Digestive System:

62. What do the organs of the digestive system do?
 a. break down food into basic nutrients b. breaks down oxygen
 c. packages unused digestive wastes for disposal d. both a and b e. both a and c
63. In order, what are the main organs that food travels through (*the alimentary canal*) in the digestive system?
 a. mouth, esophagus, stomach, small intestine, large intestine, rectum, anus
 b. mouth, esophagus, stomach, liver, small intestine, large intestine, rectum, anus
 c. mouth, esophagus, stomach, gall bladder, small intestine, large intestine, rectum, anus
 d. mouth, esophagus, stomach, pancreas, small intestine, large intestine, rectum, anus
 e. mouth, stomach, liver, pancreas, rectum, anus
64. What does the mouth do in digestion?
 a. kill cells while digesting b. eat foods
 c. the teeth, tongue, and saliva begin digestion by chewing (masticating), breaking down, and lubricating the food
 d. particles in your mouth start to produce oxygen which digests
 e. absorbs nutrients
65. What is the food passage tube that *connects the mouth to the stomach*?
 a. intestines b. tubule c. rectum d. esophagus e. duct
66. What kind of *acid* is in the stomach (along with enzymes) helps to break down food?
 a. citric acid b. sulfuric acid c. hydrochloric acid d. stomatic acid e. chlorine
67. What is the *largest organ (by mass)* in the digestive system? One role it has is to produce bile.
 a. stomach b. anus c. gall bladder d. liver e. small intestine
68. What is the *green liquid substance* that is made within the liver, is stored in the gall bladder, and helps to digest fat?
 a. water b. mucus c. hydrochloric acid d. sweat e. bile

69. What is the *longest* organ of the digestive system? In adults, it is about 22-feet long, breaks down food, then absorbs the digested nutrients into the bloodstream.
 a. stomach b. anus c. gall bladder d. small intestine e. large intestine
70. What are the main functions of the *large intestine* (colon)?
 a. it crushes the food, then stores it for energy
 b. it absorbs water and minerals into the bloodstream, and collects the wastes into the rectum for excretion
 c. absorbs proteins and carbohydrates into the bloodstream
 d. it collects fecus for energy
 e. produces chyme
71. One of the main purposes of the *rectum* is to....
 a. store wastes b. grind food c. release enzymes d. pass sugar e. urinate
72. What are the types of stones formed by excess cholesterol in the *gall bladder* that hardens and blocks the bile duct, creating pain that is felt below the right ribs of the victim?
 a. diamonds b. quartzstones c. gallstones d. boulders e. kidney stones
73. What causes *peptic ulcers* in the stomach?
 a. excess hydrochloric acid that eats away at the stomach lining
 b. excess salt c. eating hard foods d. eating excess saturated fat e. excess fat

The Muscle System:

74. The muscle system supports the skeleton and allows for skeletal movement. What else does it do? a. pumps blood b. controls the digestive system
 c. regulates body temperature d. protects soft tissue e. all of the above
75. Which *type* of muscle is responsible for pumping blood?
 a. smooth b. skeletal c. cardiac d. ventricular e. bladder
76. Which *type* of muscle is present in the walls of the stomach?
 a. smooth b. skeletal c. cardiac d. abdomen e. stomatic
77. Which *type* of muscle is attached by tendons to the bones?
 a. smooth b. skeletal c. cardiac d. bone e. marrow
78. What is the *largest* muscle in the body?
 a. biceps b. triceps c. gluteus maximus d. hamstring e. tongue
79. What disease name means “*inflammation of the joint*”? It is sometimes caused by ‘old age’ and not ‘moving around’ (although you don’t have to be old to get it).
 a. arthritis b. lung cancer c. common cold d. liver disease e. anemia

The Skeletal System:

80. What does the skeletal system do besides providing shape and support for the body?
 a. protects the internal organs b. allows for bodily (or skeletal) movement
 c. produces blood cells d. stores minerals e. all of the above
81. How many bones are in the normal human body?
 a. 210 b. 2 c. 206 d. 25 e. 640
82. What are the two main *nutrients* (or *minerals*) that your bones need?
 a. calcium and bone marrow b. phosphorus and bone marrow
 c. calcium and phosphorus d. calcium and potassium e. calcium and fiber
83. What do the cavities in the very center of bone (and the *bone marrow*) produce?
 a. red blood cells b. platelets c. white blood cells d. both a and b e. a, b, and c
84. What are both the fingers and the toes called from the tip to the first joint?
 a. carpals b. metacarpals c. tarsals d. clavicle e. phalanges
85. What are the two *main* types, or *classes*, of joints?
 a. transitional and non-transitional b. non-transitional and movable
 c. immovable and movable d. immovable and transitional e. hinge and ball
86. The elbow and knee are examples of a _____ joint.
 a. ball and socket b. gliding c. hinge d. expanding e. none of the above

The Integumentary System:

87. The integumentary system protects the body from infectious organisms and dehydration. What else does it do? (read all of the answers carefully)
- a. acts as a touch receptor
 - b. protects the body against abrupt changes in temperature
 - c. helps dispose of wastes (excess salts...)
 - d. stores water, fat, and vitamin D
 - e. all of the above
88. What is the *outer part of the skin* called?
- a. epidermis
 - b. dermis
 - c. follicle
 - d. melanin
 - e. epiglottis
89. What is the inner part of the skin called? It is relatively thick, and consists of connective tissue, nerve endings, sensory receptors, capillaries, and elastic fibers.
- a. epidermis
 - b. dermis
 - c. follicle
 - d. melanin
 - e. epiglottis
90. What is the *largest organ of the entire human body*?
- a. brain
 - b. stomach
 - c. heart
 - d. intestines
 - e. skin
91. The melanocytes secrete what *skin pigment protein* that makes the skin darker (tanned) in order to better protect it from harmful UV rays from the sun?
- a. melanin
 - b. bacon
 - c. leather
 - d. coppertone
 - e. lymphocytics
92. The sensory nerve receptors in the skin include those for pain and what else?
- a. pressure (touch)
 - b. hot temperature
 - c. cold temperature
 - d. none of the above
 - e. all of the above
93. What is the type of *skin cancer* that is the most serious and deadly form of the disease?
- a. epidermal
 - b. colon
 - c. mole
 - d. meningitis
 - e. melanoma

The Urinary System:

94. What is the purpose of the kidneys?
- a. controls water balance
 - b. regulates blood pressure
 - c. regulates salt balance
 - d. filters blood of wastes
 - e. all of the above
95. The urinary system is part of what larger system that is responsible for ridding the body of waste products?
- a. regulatory
 - b. excretory
 - c. fecal
 - d. heart
 - e. anal
96. Nephrons in the kidneys filter excess water, salts, and _____ out of the blood.
- a. urea (waste)
 - b. nutrients
 - c. oxygen
 - d. calcium
 - e. carbon dioxide (waste)
97. What do the ureters do?
- a. connect the kidney to the heart
 - b. connect the kidney to the lungs
 - c. connect the kidney to the bladder
 - d. connect the kidney to the anus
 - e. connect the ovaries to the uterus
98. What is the sac that *holds the urine* until it travels out of the body through the urethra?
- a. ureter
 - b. bladder
 - c. kidney
 - d. gall bladder
 - e. urethra
99. How many kidneys do you need to survive?
- a. 1 billion
 - b. four
 - c. one
 - d. two
 - e. zero
100. What can contribute to a person getting *kidney stones*?
- a. not drinking enough water
 - b. excess calcium buildup in the kidneys
 - c. fats
 - d. both a and b
 - e. neither a nor b

That's all folks. I am very proud of your effort during this unit. Consider how much you have learned by imagining how you would have performed on this exam if I had given you these questions four weeks ago. Keep up the great work.

Now please turn in your test, scantron, etc...and you may **silently work on what I instructed you to do.** Please do not put me in a position where I have to give you consequences (a zero for talking, etc....)! Remember, **if you still communicate in any way with your classmates or 'look around' you will receive a zero, no exceptions.**