

## TEST/REVIEW for lessons 55-73

Name \_\_\_\_\_

- 1) Which of these body parts could be classified as belonging to both the lymphatic system and the digestive system? :  
a) appendix    b) spleen    c) gall bladder    d) thymus
- 2) Under which bone does the lymph system drain into the circulatory system?  
a) cranium    b) scapula    c) clavicle    d) humerus
- 3) Which one of these is NOT a part of the lymph system?  
a) tonsils    b) thyroid    c) adenoids    d) appendix    e) thymus    f) spleen
- 4) TRUE or FALSE? The left side of the lymph system drains both legs.
- 5) Which of these is NOT true about the lymph system?  
a) Its vessels have one-way valves.  
b) It does not have any pumping system like the circulatory system does.  
c) It keeps bacteria from entering its vessels.  
d) The fluid looks clear and watery.
- 6) TRUE or FALSE    Efferent vessels carry fluids out of lymph nodes.
- 7) Three of these have a similar shape. Which is the odd one out, with a different shape?  
a) pancreas    b) spleen    c) lymph node    d) kidney
- 8) TRUE or FALSE    All organs are surrounded by "bags" made of connective tissue.
- 9) Which organ has red and white pulp?    a) spleen    b) gall bladder    c) lymph node    d) kidney
- 10) Antigen presenting cells present fragments of protein to \_\_\_\_  
a) antigens    b) B cells    c) T cells    d) macrophages    e) invaders
- 11) Which organ acts as an emergency reservoir of red blood cells?  
a) pancreas    b) heart    c) liver    d) spleen
- 12) In what organ do you find arterioles not connected to venules? (The blood cells have to find their way into venules.)  
a) spleen    b) lymph node    c) liver    d) heart
- 13) Which type of cell would you NOT expect to find in and among reticular fibers (in any body part)?  
a) red blood cells    b) lymphocytes    c) macrophages    d) fibroblasts
- 14) Which two organs collect and recycle old red blood cells?  
a) pancreas and spleen    b) liver and spleen    c) lymph nodes and spleen    d) liver and kidneys
- 15) TRUE or FALSE    Skin only contains one tissue type: epithelial.
- 16) Which type of cell produces the pigment that makes skin pink or brown?  
a) keratinocytes    b) Langerhans cells    c) melanocytes
- 17) Which of these does the skin NOT have a receptor for?  
a) hot    b) cold    c) pain    d) moisture    e) deep pressure    e) light pressure
- 18) The skin makes a waxy protein called:    a) cuticle    b) keratin    c) melanin    d) dentin    e) sebum
- 19) TRUE or FALSE    Keratinocytes eventually lose their nucleus.
- 20) TRUE or FALSE    Skin must produce an enzyme that breaks the bonds between cells, so they can flake off.
- 21) Which one of these is NOT part of a fingernail?    a) bulge    b) root    c) lunula    d) cuticle    e) bed    f) matrix
- 22) What makes hair straight or curly?  
a) the color of the hair    b) the stages of the hair cycle    c) the strength of the proteins    d) the shape of shaft

- 23) What is inside "the bulge" on the side of the hair follicle? a) immune cells b) stem cells c) keratinocytes d) fat
- 24) About how long is the hair cycle? a) days b) weeks c) months d) years
- 25) TRUE or FALSE Sweat glands produce both sweat and sebum.
- 26) TRUE or FALSE Hair is made of keratin but fingernails are not.
- 27) TRUE or FALSE Only a small fraction of a tooth lies below the surface; most of the tooth is visible.
- 28) TRUE or FALSE Teeth are very solid and do not contain any blood vessels.
- 29) How do you keep bacteria from taking up permanent residence in the crack between your teeth and your gums?  
a) use mouthwash b) use a toothbrush c) use dental floss
- 30) TRUE or FALSE The outer layer of your teeth is called dentin.
- 31) Where do you find the frenulum? a) at the back of your throat b) inside your nose c) under your tongue
- 32) TRUE or FALSE Those bumps you can see on your tongue are taste buds.
- 33) TRUE or FALSE Those bumps on your tongue have different shapes if you look at them with a magnifier.
- 34) The teeth you use to bite the end off a carrot are called: a) incisors b) cuspids c) bicuspid d) molars
- 35) How many teeth do adults normally have (including wisdom teeth)? a) 20 b) 24 c) 32 d) 36
- 36) What are the lumps on the very back of your tongue? a) taste buds b) lingual tonsils c) palatine tonsils
- 37) What is the name of the flap that covers your trachea while you swallow?  
a) epiglottis b) uvula c) frenulum d) cricoid cartilage
- 38) Which one of these is NOT a real sinus?  
a) ethmoid sinus b) frontal sinus c) maxillary sinus d) lingual sinus e) sphenoid sinus
- 39) What do the malleus (hammer) and incus (anvil) bones do?  
a) Transmit sound waves from the cochlea to the brain.  
b) Transmit sound waves from the eardrum to the cochlea.  
c) Make the ear drum move back and forth.  
d) Provide support for the cochlea and auditory nerve.
- 40) Which of these ear parts turns sound vibrations into electrical signals?  
a) stirrup b) ear drum c) organ of Corti d) auditory nerve e) vestibular organ f) malleus
- 41) TRUE or FALSE Short waves sound high and long waves sound low.
- 42) TRUE or FALSE The hammer and anvil (malleus and incus) are surrounded by air.
- 43) The Eustachian tube connects the space around the malleus and incus to:  
a) the maxillary sinuses b) the back of the throat c) the cochlea d) the vestibular organ
- 44) Which is the correct order, from outside to inside?  
a) sclera, choroid, retina c) choroid, retina, sclera  
b) retina, sclera, choroid d) sclera, retina, choroid
- 45) TRUE or FALSE The cornea is only an outer covering protecting the eye and does not play a role in focusing light.
- 46) Which of these is inside the eyeball? a) aqueous humor b) vitreous humor
- 47) What are the zonules of Zinn? a) drainage canals for aqueous fluid  
b) ligaments that attach the ciliary body to the lens c) something a science fiction writer made up
- 48) What is right at the place where the optic nerve attaches to the retina?  
a) macula b) fovea c) blind spot

- 49) Which cells are in charge of nourishing and caring for rod and cone cells?  
a) pigmented cells    b) bipolar cells    c) ganglion cells    d) horizontal cells
- 50) TRUE or FALSE To look at distant objects the ciliary body must relax and let the lens get thinner.
- 51) The highest density of cone cells occurs in the: a) retina    b) macula    c) fovea    d) optic disc
- 52) Which one of these statements is NOT true about rod and cone cells?  
a) Unlike other receptor cells, they are "turned on" all the time, releasing inhibitory neurotransmitters.  
b) They contain rhodopsin, which contains a light sensing pigment called retinal.  
c) They are connected to bipolar cells.  
d) They cannot take care of themselves and rely on pigmented cells to care for them.  
e) As they age, they lose their nucleus and organelles.
- 53) Which one of these is NOT a protective layer around the brain?  
a) arachnoid    b) corpus callosum    c) pia mater    d) dura mater
- 54) Why is the brain wrinkled?  
a) Because it shrinks as we grow older.    b) To accommodate lots of capillaries.    c) To make more surface area.
- 55) Which of these helps you with balance and coordination?  
a) cerebellum    b) cerebrum    c) corpus callosum    d) limbic system
- 56) Why is gray matter darker than white matter?  
a) Because it contains pigment cells.    b) Because it has all the cell bodies of the neurons.  
c) Because all its nuclei are darker than normal.    d) It isn't darker.
- 57) Which of these connects the right and left sides of the cerebrum?  
a) central fissure    b) mid-brain    c) corpus callosum    d) cingulate gyrus
- 58) Which one of these is NOT a function of the ventricles in the brain?  
a) cushioning    b) buoyancy    c) nourishing    d) thinking
- 59) Which brain part is critical for turning short term memories into long term memories?  
a) corpus callosum    b) hippocampus    c) amygdala    d) cerebellum
- 60) Which one of these is NOT true about arteries?  
a) They are built for high pressure.    c) They go away from the heart.  
b) They have one-way valves.    d) They are surrounded by smooth muscles.
- 61) Which one of these is NOT true for veins?  
a) They have a smaller lumen than arteries.    c) They are surrounded by a layer of connective tissue.  
b) Their innermost layer is the endothelium.    d) They have one-way valves.
- 62) TRUE or FALSE Even very tiny arterioles have a layer of smooth muscle so their diameter can increase or decrease.
- 63) TRUE or FALSE Some capillaries are intentionally leaky.
- 64) TRUE or FALSE During embryonic development, the heart cells do not start beating until the heart is complete.
- 65) What do the heart's AV and SA nodes do?  
a) initiate each beat    b) open and close the valves    c) control how much blood enter the heart
- 66) TRUE or FALSE When a red blood cell has made a complete circuit through the entire circulatory system, it has gone through the heart not once but twice.
- 67) For oxygen to pass from the air into the cells in the alveoli, there must be a tiny bit of this chemical, which breaks the surface tension of the water that keeps the cells moist. (Acts a bit like soap in this regard.)  
a) sodium    b) surfactant    c) acid
- 68) Which one of these does NOT go through the diaphragm?  
a) ascending aorta    b) descending aorta    c) descending vena cava    d) esophagus
- 69) Most carbon dioxide travels in the blood in the form of:  
a) CO<sub>2</sub>    b) CO<sub>3</sub>    c) HCO<sub>3</sub>    d) H<sub>2</sub>OCO<sub>2</sub>

- 70) Which one of these is NOT a function of the liver?
- a) making amino acids
  - b) recycling old red blood cells
  - c) making blood plasma proteins
  - d) managing cholesterol levels
  - e) making bile
  - f) storing glucose as glycogen
  - g) making insulin
  - h) breaking down toxins
- 71) What is the basic unit of the liver? a) alveolus b) lobule c) glomerulus d) follicle
- 72) In the liver we find something called a "triad." What three things make a triad?
- a) vein, artery, bile canal
  - b) vein, artery, lymph duct
  - c) vein, artery, smooth muscle
- 73) What immune system cells are found in the liver?
- a) Langerhans cells
  - b) dust cells
  - c) stem cells
  - d) hepatocytes
  - e) Kupffer cells
- 74) The walls of the stomach contain how many layers of muscle? a) 1 b) 2 c) 3 d) 4
- 75) Which of these is NOT one of the layers of the intestinal walls?
- a) serosa
  - b) mucosa
  - c) peritoneum
  - d) submucosa
  - e) muscularis
- 76) TRUE or FALSE The pancreas has both endocrine and exocrine glands.
- 77) Which two substances secreted by the pancreas work together to maintain the right amount of glucose in the blood?
- a) insulin and glucagon
  - b) insulin and gastrin
  - c) glucagon and glycogen
  - d) gastrin and secretin
- 78) Which of these digestive enzymes breaks apart starches? a) protease b) lipase c) amylase d) nuclease
- 79) Which of these does the most reabsorption of water? a) duodenum b) jejunum c) ileum d) colon
- 80) Inside the villi, what absorbs fat molecules? a) adipose cells b) lacteal c) microvilli d) capillaries
- 81) If fat is hydrophobic, how is it able to travel through your blood which is hydrophilic (being mostly water)?
- a) The fat molecules have to be very small.
  - b) The fat molecules are attached to glucose.
  - c) The fat must ride inside chylomicrons.
  - d) The fat molecules are so small they are no longer hydrophobic.
- 82) What do Peyer's patches do? a) make enzymes b) fight infection c) absorb minerals d) make mucus
- 83) The villi are made of enterocytes and goblet cells. What do the goblet cells do?
- a) make mucus
  - b) make enzymes
  - c) make hormones
  - d) make gobs
- 84) TRUE or FALSE A few organs lie outside the body cavities.
- 85) The addominal cavity is inside a 'bag" made of connective tissue. When this bag wraps around organs, it is called:
- a) parietal peritoneum
  - b) visceral peritoneum
- 86) Which of these does the mesentery NOT do?
- a) provide a surface for blood and lymph vessels to cling to
  - b) secrete serous fluid
  - c) hold the intestines in place
  - d) provide nutrition to the intestines
- 87) What is the primary function of serous fluid? a) lubrication b) distributin of hormones c) gathering wastes
- 88) Which of these organs has 2 sphincter muscles? a) heart b) lungs c) stomach d) liver
- 89) TRUE or FALSE The lungs are dependent on the diaphragm for breathing, as they have no muscles of their own.
- 90) Which of these is the rest phase of the heart's beating cycle? a) systole b) diastole

RIGHT BRAIN/ LEFT BRAIN Write "R" or "L" for each function.

- 91) Your sense of time \_\_\_\_
- 92) Artistic ability \_\_\_\_
- 93) Logic \_\_\_\_
- 94) Seeing "the whole picture" \_\_\_\_
- 95) Rhythm of speech \_\_\_\_
- 96) Flashes of insight \_\_\_\_
- 97) Speech \_\_\_\_
- 98) Music appreciation \_\_\_\_
- 99) Squencing \_\_\_\_
- 100) Using symbols \_\_\_\_