

**QUIZ for "MAPPING THE BODY WITH ART" lesson 55** Name/Date \_\_\_\_\_

- 1) Is the lymph system open or closed?  
a) open    b) closed    c) semi-open
- 2) What are lymph vessels made of?  
a) cells    b) proteins    c) fats    d) connective tissue
- 3) How does lymph fluid move along the vessels?  
a) The fluid coming in from the cells pushes it along.    b) It is pumped by the heart, like the blood.  
c) Just the motions of our muscles in our everyday life push it along.  
d) The lymph vessels are surrounded by tiny muscles that contract sort of like intestinal muscles do.
- 4) What feature of the lymph system keeps the lymph flowing in the correct direction?  
a) Nothing-- it does go backwards sometimes.    b) pressure from the surrounding blood vessels  
c) two-way valves    d) one-way valves
- 5) Which of these would you NOT expect to meet in a lymph vessel?  
a) white blood cell    b) red blood cell    c) proteins    d) bacteria
- 6) Which of these places is LEAST likely to have lymph nodes?  
a) neck    b) fingertips    c) knees    d) armpits    e) groin
- 7) Which of these is NOT considered to be part of the lymph system?  
a) appendix    b) tonsils    c) thymus    d) spleen    e) thyroid
- 8) Where does the lymph system empty into the blood stream?  
a) near the heart    b) near the liver    c) near the appendix    d) near the kidneys
- 9) TRUE or FALSE? Each side of the body is drained by one half of the lymph system.
- 10) Which organ shrinks as you get older?  
a) liver    b) thymus    c) spleen    d) appendix    e) tonsils
- 11) Where are your axillary lymph nodes located?  
a) neck    b) fingertips    c) knees    d) armpits    e) groin
- 12) This area contains beneficial bacteria that help keep our intestines healthy.  
a) spleen    b) small intestines    c) colon    d) cecum

**QUIZ for "MAPPING THE BODY WITH ART" lesson 56** Name/Date \_\_\_\_\_

- 1) Which of these is NOT a function of a lymph node?  
a) recycling damaged red blood cells    b) filtering lymph fluid to remove dirt and pathogens  
c) allowing T cells to communicate with B cells
- 2) Which of these is NOT a function of the spleen?  
a) providing a place for T cells to communicate with B cells    b) storing red blood cells  
c) recycling red blood cells    d) making enzymes for digestion
- 3) Which of these takes lymph fluid INTO a node?  
a) efferent    b) afferent    c) arteriole    d) venule
- 4) Which one of these is something the lymph nodes and spleen do NOT have in common?  
a) They both contain T and B cells.    b) They both have follicles.  
c) They both have afferent and efferent vessels bringing in lymph fluid.  
d) They both have arterioles and venules entering and exiting at the hilum.
- 5) What type of cell can make reticular fibers?  
a) fibroblasts    b) macrophages    c) T cells    d) dendritic cells
- 6) REVIEW: What structure inside macrophages is used to digest (recycle) all the stuff they eat?  
a) mitochondria    b) lysosomes    c) Golgi bodies    d) peroxisomes
- 7) What is (primarily) inside a germinal center in a lymph node?  
a) macrophages    b) T cells    c) naive B cells    d) plasma cells
- 8) What happens in a capillary bed?  
a) Cells received oxygen and get rid of wastes.    b) Cells sleep.  
c) T cells communicate with B cells.    d) Lymph fluid is filtered.
- 9) Which of these is NOT a way that T cells might come into a lymph node?  
a) through the efferent vessels    b) through the afferent vessels    c) through the HEV vessels
- 10) Which one of these is found only in the spleen (nowhere else in the body)?  
a) Red blood cells get recycled by macrophages.    b) The capillary system is open, not closed.  
c) T cells communicate with B cells.    d) Antigens are presented to T cells.
- 11) When a B cells is activated by a T cell, what do we call it?  
a) granular cell    b) activated B cell    c) plasma cell    d) naive B cell
- 12) Which of these is closest to the efferent vessels in a node?  
a) cortex    b) paracortex    c) medulla
- 13) TRUE or FALSE? Capillary beds occur in only one compartment of a lymph node.
- 14) Which of these would probably not come into a node through afferent vessels?  
a) white blood cells    b) red blood cells    c) bacteria    d) wastes
- 15) What do we call the dividers between the sections in a node?  
a) pulp    b) capsules    c) dividers    d) trabeculae

**QUIZ for "MAPPING THE BODY WITH ART" lesson 57** Name/Date \_\_\_\_\_

- 1) TRUE or FALSE? Blood that has little oxygen in it is blue. (Careful!)
- 2) TRUE or FALSE? People with dark skin have more melanocytes than people with light skin.
- 3) TRUE or FALSE? Skin contains muscles.
- 4) What is inside the "bulge" on the side of a hair follicle?  
a) stem cells   b) white blood cells   c) sebum   d) bacteria   e) fat cells
- 5) Sebaceous glands make sebum. What texture is sebum?  
a) salty   b) watery   c) waxy   d) oily
- 6) In what layer do you find fibroblasts?  
a) dermis   b) epidermis   c) hypodermis   d) all three
- 7) In what layer do you find Langerhans cells?  
a) dermis   b) epidermis   c) hypodermis   d) all three
- 8) Which of these is "padded"?  
a) pain sensor   b) cold sensor   c) hot sensor   d) deep touch sensor
- 9) Which layer is full of collagen and elastin?  
a) dermis   b) epidermis   c) hypodermis
- 10) Which of these helps to make our fingerprint patterns?  
a) melanocytes   b) keratinocytes   c) dermal papillae   d) stratum corneum
- 11) Which cells gradually lose all their organelles?  
a) Langerhans cells   b) melanocytes   c) keratinocytes
- 12) TRUE or FALSE? Lymph vessels are open-ended, unlike capillaries.
- 13) Which of these does NOT help to make the skin water-resistant?  
a) sebum   b) melanin   c) keratin
- 14) TRUE or FALSE? ALL mitosis in the epidermis occurs in the basal layer.
- 15) Which of these cells has a dendritic shape?  
a) basal cells   b) Langerhans cells   c) keratinocytes   d) melanocytes

**QUIZ for "MAPPING THE BODY WITH ART" lesson 58** Name/Date \_\_\_\_\_

- 1) What is the white part on your nail called?  
a) fold    b) lunula    c) matrix    d) cuticle
- 2) What attaches the arrector pili muscle to the follicle?  
a) tiny ligaments    b) melanocytes    c) the basal cells of the epidermis    d) collagen of the basement membrane
- 3) What is inside "the bulge"?  
a) melanocytes    b) bacteria    c) keratinocytes    d) stem cells
- 4) Where do you always find the "medulla" of something?  
a) on the end    b) on the outside    c) in the center
- 5) What does the sebaceous gland produce?  
a) sebum    b) melanin    c) stem cells    d) bacteria
- 6) The main function of the dermal papilla is:  
a) to anchor the hair root in the dermis    b) to create the hair shaft  
c) to be a source of stem cells to regenerate the follicle    d) to provide nourishment to the basal cells via a capillary
- 7) TRUE or FALSE? Most hairs on your head right now are in the anagen phase.
- 8) TRUE or FALSE? If you have straight hair, your individual hairs are flat.
- 9) TRUE or FALSE? The actively growing part of a fingernail is called the matrix.
- 10) The outer covering of an individual hair is called the:  
a) cuticle    b) cortex    c) medulla    d) matrix    e) shaft
- 11) The word "telos" means "far away." During telogen phase, what is the follicle far away from?  
a) the bulge    b) the sebaceous gland    c) the arrector pili muscle  
d) the epidermis    e) the dermal papillae
- 12) What do the keratinocytes in the skin produce that the keratinocytes in the hair bulb do not?  
a) enzymes that will dissolve the desmosomes that hold them together  
b) melanin that adds pigment to the cells  
c) keratin that fills the cells
- 13) About how many hair follicles are on a human scalp? (This is from info page.)  
a) 1,000    b) 100,000    c) 1,000,000
- 14) About how many times in your lifetime will your hair follicle regenerate back to anagen phase?  
a) 20    b) 200    c) 2,000
- 15) Which one of these words is not used for nail anatomy?  
a) plate    b) bed    c) edge    d) root    e) bulb

**QUIZ for "MAPPING THE BODY WITH ART" lesson 59** Name/Date \_\_\_\_\_

- 1) Which of these is NOT a type of taste bud?  
a) circumvallate    b) foliate    c) fungiform    d) filiform    e) Trick question, none of these are taste buds.
- 2) Which one of these is located on the back of your tongue?  
a) circumvallate    b) foliate    c) fungiform    d) filiform
- 3) When do your teeth begin to form?  
a) early in embryonic development    b) late in embryonic development  
c) at birth    d) during childhood
- 4) TRUE or FALSE? Odontoblasts make enamel.
- 5) TRUE or FALSE? Tooth-forming cells (ameloblasts, odontoblasts and cementoblasts) all die and disappear after the tooth is formed and finished.
- 6) TRUE or FALSE? Enamel is the hardest substance in the body.
- 7) Which has the highest level of fluoride?    a) pulp    b) dentin    c) cementum    d) enamel
- 8) TRUE or FALSE? Taste buds can regrow if they are damaged.
- 9) TRUE or FALSE? "Gingiva" and "gums" are the same thing.
- 10) TRUE or FALSE? Enamel is completely mineralized and does not contain any protein.
- 11) How many teeth does an adult have, if they have not had their wisdom teeth removed?  
a) 20    b) 28    c) 32    d) 36
- 12) TRUE or FALSE? Gingiva (gums) are made of stratified epithelium.
- 13) What activity can keep the gingiva healthy?    a) flossing    b) brushing    c) visiting the dentist    d) all of these
- 14) Which of these contains blood vessels?    a) pulp    b) dentin    c) cementum    d) enamel
- 15) TRUE or FALSE? Another name for the cuspid teeth are the "canines."
- 16) A wisdom tooth is actually a\_\_\_\_.    a) molar    b) cuspid    c) bicuspid    d) incisor
- 17) Which one of these is not a taste that your tongue can detect?  
a) delicious    b) salty    c) sweet    d) sour    e) bitter
- 18) Which of these does NOT have taste buds?    a) circumvallate    b) foliate    c) fungiform    d) filiform
- 19) Where do you find mucosa? (This question taken from the info page.)  
a) Only in the mouth and nose.    b) Around the taste buds.    c) Anywhere there is epithelium.  
d) Covering all interior surfaces such as mouth, nose, stomach, instestines and reproductive tracts.
- 20) What two elements are most important ingredients for teeth? (This is from the info page.)  
a) calcium and iron    b) calcium and phosphorus    c) magnesium and iron    d) sodiium and potassium

**QUIZ for "MAPPING THE BODY WITH ART" lesson 60** Name/Date \_\_\_\_\_

- 1) In this drawing, which teeth do we see?  
a) molars    b) cuspids    c) bicuspid    d) incisors
- 2) What substance is found in both bone and cartilage?  
a) collagen fibers    b) blood vessels    c) minerals    d) epithelium
- 3) What is the tip of the soft palate called?    a) epiglottis    b) uvula    c) frenulum    d) tonsil
- 4) How many muscles does the tongue have?    a) 1    b) 3    c) 8    d) 20
- 5) Which of these is most similar to the adenoid?  
a) palatine tonsil    b) uvula    c) nasal concha    d) pituitary gland    e) salivary gland
- 6) The hyoid bone is connected to the jaw bone.
- 7) Which of these is NOT in the area of the pharynx?  
a) palatine tonsil    b) lingual tonsil    c) uvula    d) vocal chords    e) epiglottis
- 8) TRUE or FALSE? Air always goes past your vocal chords, even when you are not talking.
- 9) Which of these shapes best describes the epiglottis?    a) finger    b) flap    c) ball    d) tube
- 10) Which one of these is NOT a salivary gland?    a) parotid    b) maxillary    c) sublingual    d) submandibular
- 11) TRUE or FALSE? The ethmoid sinus gets its name from the bone around it.
- 12) Which of these brain parts is closest to the sphenoid sinus?  
a) pons    b) cerebellum    c) pituitary gland    d) medulla oblongata
- 13) Which of these do you have two of?    a) adenoid    b) epiglottis    c) maxillary sinus    d) sublingual tonsil
- 14) Which bone has a labyrinth?    a) ethmoid    b) sphenoid    c) jaw    d) hard plate
- 15) Where do the Eustachian tubes lead?  
a) to the eye    b) to the brain    c) to the ear    d) to the sphenoid sinus
- 16) Which one of these do we NOT find in the olfactory epithelium?  
a) neurons    b) Bowman's cells    c) muscles    d) columnar epithelial cells
- 17) What mechanism starts the sense of smell?  
a) Receptor cells are activated by a chemical process.    b) Molecules fit into receptors on neuron dendrites.  
c) The brain receives signals from the nose.    d) Neurotransmitter carry signals from neuron to neuron.
- 18) TRUE or FALSE? Like all neurons, the neurons in your epithelial tissue cannot regenerate.
- 19) Which brain part gets you up in the morning?    a) pons    b) medulla oblongata    c) cerebellum    d) cerebrum
- 20) Which brain part controls balance, coordination and muscle memory?  
a) cerebrum    b) cerebellum    c) pons    d) medulla oblongata

**QUIZ for "MAPPING THE BODY WITH ART" lesson 61** Name/Date \_\_\_\_\_

- 1) Which one of these is NOT part of the middle ear?  
a) stapes    b) malleus    c) cochlea    d) incus    e) Eustachian tube
- 2) Which of these words accurately describes the eardrum?    a) opaque    b) transparent    c) translucent
- 3) Which of these ensures equal pressure on both sides of the eardrum?  
a) vestibule    b) auditory canal    c) cochlea    d) oval window    e) Eustachian tube
- 4) The entire outer ear (the part we see) is correctly called the  
a) pinna    b) helix    c) tragus    d) frenulum    e) lobe
- 5) Where is the end of the Eustachian tube? (where fresh air can flow in or out)  
a) in the larynx    b) in the inner ear    c) in the nasopharynx    d) inside the sinuses
- 6) What is the function of the middle ear?  
a) to translate sound into electrical signals    b) to transfer sound vibrations to the inner ear  
c) to give us a sense of balance
- 7) Which of these is the smallest bone in the body?  
a) stapes (stirrup)    b) malleus (hammer)    c) incus (anvil)
- 8) How many semicircular canals are in the vestibular system?    a) 1    b) 2    c) 3    d) 4
- 9) TRUE or FALSE? Both the middle ear and inner ear are filled with fluid.
- 10) Which of these is NOT a part of the organ of Corti?  
a) tectorial membrane    b) tympanic membrane    c) hair cells    d) nerve cells
- 11) Which of these describes the hearing range of humans?  
a) 2 to 20 Hz    b) 20 to 200 Hz    c) 20 to 20,000 Hz    d) 2,000 to 200,000 Hz
- 12) Which of these is involved with our sense of balance?  
a) organ of Corti    b) cochlea    c) middle ear    d) vestibular system
- 13) Where does the word "cochlea" come from?  
a) Latin for "hammer."    b) Greek for "snail shell."    c) Greek for "cone-shaped."  
d) Greek for "tube."    e) Latin for "complicated maze."
- 14) Which of these touches the eardrum?    a) oval window    b) stirrup    c) hammer    d) anvil
- 15) Which of these touches the stirrup (stapes)?    a) round window    b) oval window
- 16) What causes the hair cells to trigger the neurons to send a signal?  
a) The tectorial membrane rubbing against them.    b) The efferent nerves fibers bringing in signals from the brain.  
c) The tympanic membrane vibrating with sound waves.    d) The vibrations in the fluid moving the hairs.
- 17) TRUE or FALSE? The shape of the pinna helps to bring in sound, especially the frequencies of the human voice.
- 18) What hertz range is the human voice?  
a) about 10 to 30 Hz    b) about 100 to 300 Hz    c) about 1,000 to 3,000 Hz

**QUIZ for "MAPPING THE BODY WITH ART" lesson 62** Name/Date \_\_\_\_\_

- 1) Which of these parts holds the lens in place?  
a) iris    b) cornea    c) zonules of Zinn    d) tarsal plate    e) canals of Schlem
- 2) The cells of which part produce the fluid that fills the anterior and posterior chambers?  
a) retina    b) ciliary body    c) iris    d) tarsal glands    e) lacrimal glands
- 3) Which of these does NOT contain muscles?    a) lens    b) iris    c) ciliary body    d) eyelid
- 4) What is the very outer layer on the front of the eye. It's the layer you touch if you touch your eyeball.  
a) hyaloid membrane    b) sclera    c) hyaloid membrane    d) conjunctiva
- 5) What do the tarsal glands make?  
a) aqueous humor to fill the posterior and anterior chambers    b) tears to wash the eye  
c) a special oil to lubricate the eye    d) immune cells to keep the eye healthy
- 6) Where is the hyaloid canal located?  
a) In the center of the optic nerve.    b) Near the iris so it can drain the aqueous fluid.  
c) Near the eyelids, so it can drain tears.    d) In the middle of the vitreous humor.
- 7) TRUE or FALSE? The macula is larger than the fovea.
- 8) Does the lens contain any blood vessels? (Can you guess this answer?)    a) Yes    b) No
- 9) Which of these acts like a pulley?    a) cochlea    b) trochlea    c) inferior oblique muscle    d) zonules
- 10) What gives shape and strenght to the eyelid?  
a) tarsal plate    b) zonules    c) ciliary bodies    d) trochlea    e) sclera
- 11) If you cut into an eyeball from the outside, what is the correct order of layers you will hit?  
a) choroid, sclera, retina, vitreous body    b) sclera, choroid, retina, vitreous body  
c) choroid, sclera, conjunctiva, retina    d) retina, choroid, sclera, vitreous body
- 12) Which of these does NOT contain fluid?  
a) lens    b) posterior chamber    c) anterior chamber    d) vitreous body    e) lacrimal glands
- 13) Which of these usually contains the pigment melanin?    a) choroid    b) sclera    c) cornea    d) pupil    e) iris
- 14) Which one of these isn't really a part at all?    a) iris    b) pupil    c) cornea    d) retina    e) sclera
- 15) TRUE or FALSE? Rectus means straight.
- 16) TRUE or FALSE? Superior always means better.
- 17) How many muscles control the eye?    a) 2    b) 4    c) 6    d) 8    e) 10    f) 12
- 18) Which of these has a hard outer shell?    a) iris    b) pupil    c) cornea    d) retina    e) lens
- 19) What part helps to drain tears?    a) puncta    b) canals of Schlemm    c) lacrimal caruncle    d) lacrimal glands
- 20) TRUE or FALSE? The lacrimal glands produce tears.

**QUIZ for "MAPPING THE BODY WITH ART" lesson 63** Name/Date \_\_\_\_\_

- 1) Which of these parts bends light? a) sclera b) iris c) cornea d) retina e) optic nerve
- 2) TRUE or FALSE? To view things farther away, the lens must become flatter.
- 3) Which of these parts holds the lens in place?  
a) iris b) zonules of Zinn c) aqueous humor d) canals of Schlem e) cornea
- 4) TRUE or FALSE? The macula is smaller than the fovea.
- 5) TRUE or FALSE? Pigmented epithelial cells regenerate when damaged, just like skin cells.
- 6) TRUE or FALSE? Your blind spot is right over your fovea.
- 7) TRUE or FALSE? The retina sees images upside down.
- 8) TRUE or FALSE? You have more rods than cones.
- 9) Which of these is a color that cones don't respond to? a) yellow b) red c) green d) blue
- 10) Which is smaller, rhodopsin or retinal? a) retinal b) rhodopsin
- 11) What holds the rhodopsin molecule in place?  
a) cytoskeleton microtubules b) retinal molecules c) Golgi bodies d) phospholipid membrane
- 12) What happens when a photon of light hits the retinal molecule?  
a) It loses an electron. b) It changes shape and becomes straight. c) It regenerates.  
d) It starts an action potential. e) It falls out of the rhodopsin molecule.
- 13) Which of these leads right into the optic nerve?  
a) amacrine cell b) horizontal cell c) ganglion cell d) bipolar cell
- 14) Which of these let the rods and cones communicate with each other?  
a) amacrine cell b) horizontal cell c) ganglion cell d) bipolar cell
- 15) Which amino acid do we find functioning as a neurotransmitter at the ends of rods and cones?  
a) glutamate b) glycine c) lysine d) glutathione
- 16) Which cell part makes a microtubule highway through a narrow passage in the rod and cone cells?  
a) ribosome b) Golgi bodies c) mitochondria d) nucleus e) centrioles
- 17) Which of these is NOT a job that the pigmented epithelial cells do? a) Nourish the rod and cone cells.  
b) Form a protective barrier so that germs stay out. c) Prune the tips off the rod and cone cells and recycle them.  
d) Provide a connection between rods and cones so they can cooperate. e) Absorbs extra photons of light.
- 18) Which one of these allows us to see at night? a) rods b) cones
- 19) Where will you find the highest number of cone cells?  
a) At the outer edges of the retina b) In the macula c) They are evenly spaced all over the retina.
- 20) TRUE or FALSE? When it is dark, the rods are switched on and are releasing neurotransmitters.

**QUIZ for "MAPPING THE BODY WITH ART" lesson 64** Name/Date \_\_\_\_\_

- 1) The cerebrum has how many hemispheres?    a) 1    b) 2    c) 3    d) 4
- 2) TRUE or FALSE?    The right hemisphere controls the left side of the body.
- 3) What is the purpose of the brain's wrinkles?  
a) To make more space for inner parts.    b) To allow for lots of blood vessels.  
c) To allow for large surface area.    d) There isn't any purpose.
- 4) What is the optic chiasm?  
a) The place where the eye nerves cross on the bottom side of the brain.    b) The central focal point of the eye.  
c) The place where the optic nerve enters the brain.    d) The nerve cord that connects the eyes to each other.
- 5) TRUE or FALSE?    Gray matter is made of mostly axons.
- 6) The pons is mostly concerned with:    a) eating    b) sleeping    c) anger    d) thinking
- 7) The medulla oblongata controls:    a) reflexes of eyes and ears    b) waking and sleeping cycles  
c) appetite and body temperature    d) hearth rate and breathing
- 8) Which one of these is NOT a function of the midbrain?  
a) It's a pathway for connections between the cerebrum and cerebellum  
b) It decides if a signal is important enough to relay to the cerebrum.  
c) It produces a neurotransmitter necessary for muscle movement.    d) It contains reflexes.
- 9) Which of these brain parts connects the cerebrum to the limbic system?  
a) fornix    b) thalamus    c) corpus callosum    d) cingulate gyrus
- 10) Which of these makes hormones?    a) pituitary gland    b) olfactory bulb    c) thalamus    d) mammillary body
- 11) Which of these is NOT a connecting piece?    a) corpus callosum    b) amygdala    c) intermediate mass    d) fornix
- 12) Which of these controls strong emotions such as fear and anger?  
a) corpus callosum    b) amygdala    c) intermediate mass    d) fornix    e) hippocampus
- 13) Which of these keeps track of time of day and makes melatonin at night?  
a) colliculus    b) mammillary body    c) pituitary gland    d) pineal gland
- 14) Which of these is NOT a part of the limbic system?    a) fornix    b) pons    c) hippocampus    d) mammillary body
- 15) Which of these is NOT found on the outside of the cerebrum?  
a) ventricles    b) pia mater    c) dura mater    d) arachnoid layer    e) blood vessels
- 16) Which one of these is NOT a function of the cerebellum?  
a) balance    b) muscle memory    c) visual reflexes    d) coordination of muscle movements
- 17) TRUE or FALSE?    People who have their corpus callosum cut always die.
- 18) What is the function of the limbic system?    a) heart rate and breathing    b) emotion and memory  
c) appetite and body temperature    d) movement and coordination
- 19) Which of these parts sorts out signals coming from all the sensory neurons in the body?  
a) thalamus    b) hypothalamus    c) hippocampus    d) amygdala    e) midbrain
- 20) Which one of these is a "bump"?    a) fissure    b) sulcus    c) gyrus

**QUIZ for "MAPPING THE BODY WITH ART" lesson 65** Name/Date \_\_\_\_\_

- 1) The occipital lobe is connected which which body part?  
a) fingers    b) nose    c) mouth    d) ears    e) eyes
- 2) Which one of these is NOT a function of the temporal lobe?  
a) speech    b) some types of memory    c) smell    d) making decisions    e) hearing
- 3) Which one of these would the left frontal lobe NOT be very good at?  
a) composing music    b) logic puzzles    c) telling time    d) arithmetic    e) creating symbols
- 4) Which one of these would the right frontal lobe NOT be very good at?  
a) drawing    b) sculpting    c) doing math    d) writing a story    e) composing a song
- 5) Which one of these is NOT a function of ventricles and cerebrospinal fluid?  
a) communication    b) nutrition    c) buoyancy    d) cushioning    e) processing information
- 6) How many ventricles are there?    a) 1    b) 2    c) 3    d) 4    e) 8
- 7) What chemical is the neurotransmitter in short term memory?  
a) serotonin    b) dopamine    c) glutamate
- 8) What happens to dendrites in long term memory?    a) They get larger.    b) They grow more spines.  
c) They shrink.    d) They release neurotransmitters.    e) They produce more "arms."
- 9) TRUE or FALSE? The parietal lobe is behind the parietal bone.
- 10) TRUE or FALSE? Most people have their speech center in their right hemisphere.
- 11) Which of these is NOT involved with speech?  
a) Wernicke's area    b) Broca's area    c) occipital lobe    d) temporal lobe    e) motor cortex
- 12) TRUE or FALSE? The right occipital lobe is connected to the left eye.
- 13) What is the choroid plexus?    a) The place where CSF fluid is produced.    b) The place that sorts incoming signals.  
c) The place where the cerebrum is attached to the limbic system.  
d) The place where the left and right hemispheres are joined.    e) The place where the two halves of the thalamus are joined.
- 14) What is CSF fluid most like?    a) blood    b) plasma    c) water    d) lymph
- 15) Which of these structures does NOT help to form long term memories?  
a) amygdala    b) mamillary body    c) hippocampus    d) pons    e) fornix    f) dendrites
- 16) Where is the CSF located outside of the cerebrum?  
a) under the pia mater    b) under the arachnoid layer    c) under the skin    d) on top of the dura mater
- 17) TRUE or FALSE? It is possible for some sensory input to go right into the cerebellum without going into the cerebrum.
- 18) TRUE or FALSE? All long term memories start out as short term memories.
- 19) Where are short term memories stored?  
a) hippocampus    b) prefrontal cortex    c) temporal lobe    d) amygdala
- 20) If your hippocampus was damaged, would you still be able to remember how to tie your shoes?    a) Yes    b) No

**QUIZ for "MAPPING THE BODY WITH ART" lesson 66** Name/Date \_\_\_\_\_

- 1) Which type of vessel has a smaller lumen (inside diameter)? a) artery b) vein
- 2) Which layer contains the endothelial cells?  
a) adventitia b) tunica externa c) tunica media d) tunica intima
- 3) TRUE or FALSE? Epithelial cells always have a basement membrane under them.
- 4) TRUE or FALSE? Vessels sometimes need vessels.
- 5) Which are built to withstand high pressure?  
a) capillaries b) veins c) arteries
- 6) In what layer does plaque build up?  
a) tunica intima b) tunica externa
- 7) Which type of vessel has one-way valves?  
a) capillaries b) veins c) arteries
- 8) The smooth muscle in a vessel is in which layer? a) tunica externa b) tunica media c) tunica intima
- 9) What does the vaso vasorum do?  
a) Constrict the vessel to increase blood pressure. b) Supply food and oxygen to cells in the middle and outer layers.  
c) Allow nutrients to pass into the surrounding cells. d) Return blood to the heart.
- 10) Which type of capillary has lots of tiny holes?  
a) fenestrated b) continuous c) sinusoidal
- 11) Which type of capillary has large gaps?  
a) fenestrated b) continuous c) sinusoidal
- 12) Where would you NOT find fenestrated capillaries?  
a) kidneys b) pancreas c) glands d) brain e) intestines
- 13) Which of these does NOT enter venules in a capillary bed?  
a) carbon dioxide b) oxygen c) urea d) lactic acid
- 14) What type of cell produces the collagen and elastin in the elastic layers?  
a) muscles cells b) macrophages c) endothelial cells. d) osteocytes e) fibroblasts

**QUIZ for "MAPPING THE BODY WITH ART" lesson 67** Name/Date \_\_\_\_\_

- 1) Which of these blood vessels brings low-oxygen blood from the body into the heart?  
a) aorta    b) vena cava    c) pulmonary arteries
- 2) What is the name of the membrane bag that surrounds the heart?  
a) septum    b) myocardium    c) pericardium
- 3) What does the word root "brachio" mean?  
a) arms    b) head    c) heart    d) blood
- 4) TRUE or FALSE? The word root "pulmo" is always associated with the lungs.
- 5) TRUE or FALSE? The heart is actual two separate pumps sitting side by side.
- 6) TRUE or FALSE? Another name for the tricuspid valve is the mitral valve.
- 7) What is the technical term for phase of the cardiac cycle when the chambers are contracting?  
a) systole    b) diastole
- 8) TRUE or FALSE? The contraction of the chambers is what makes the lub dub sound of the heart beat.
- 9) TRUE or FALSE? The definition of a "vein" is that it carries blood that is low in oxygen.
- 10) Which chambers have a semilunar valve at the top?  
a) atria    b) ventricles
- 11) The inside of the heart contains lots of "strings." What do these strings do?  
a) They tie the atria to the ventricles.    b) They help the heart to contract.  
c) They keep the two sides of the heart together.    d) They anchor the valve flaps to the walls of the ventricles.
- 12) Where does the blood from the pulmonary arteries go?  
a) into the right atrium    b) into the left atrium    c) to the body    d) to the lungs
- 13) Which blood vessel looks like a giant arch going over the top of the heart?  
a) aorta    b) pulmonary artery    c) superior vena cava    d) pulmonary vein
- 14) What does the SA node do?  
a) Causes the heart rate to speed up when you exercise.    b) Sends out an electrical signal that initiates contraction.  
c) Receives an electrical signal and then transfers it on to the ventricles.
- 15) What do the coronary arteries do?  
a) Go off the top of the aorta and take blood to the head and arms.    b) Take blood to the lungs.  
c) Receive blood from the lungs.    d) Supply the cells of the heart muscle tissue.

**QUIZ for "MAPPING THE BODY WITH ART" lesson 68** Name/Date \_\_\_\_\_

- 1) Which of these is NOT in the thoracic cavity? a) heart b) lungs c) liver d) trachea e) esophagus
- 2) Which of these does NOT go through a hole in the diaphragm?  
a) esophagus b) trachea c) descending aorta d) inferior vena cava
- 3) TRUE or FALSE? A lobule is larger than a lobe.
- 4) Which lung is larger, left or right? a) right b) left c) Trick question, they are the same size.
- 5) Which of these membranes attaches to the wall of the thoracic cavity? a) parietal pleura b) visceral pleura
- 6) What lies between the parietal and visceral membranes that surround the lung?  
a) air b) a thin layer of fat c) muscle d) watery fluid
- 7) Which part of the brain is the diaphragm "wired" to?  
a) pons b) medulla oblongata c) cerebellum e) cerebrum f) thalamus
- 8) Which type of cell is NOT found in the alveoli?  
a) squamous epithelial b) cuboidal epithelial c) pseudostratified epithelial
- 9) Which of these is NOT a way that carbon dioxide is transported to the lungs?  
a) dissolved in blood plasma b) broken down into one carbon and two oxygen atoms  
c) attached to hemoglobin d) broken down to bicarbonate ions
- 10) Exactly where is oxygen carried in red blood cells?  
a) the "globin" part of hemoglobin b) dissolved into the fluid inside the red cells  
c) the "heme" part of hemoglobin
- 11) TRUE or FALSE? Endothelial cells are thinner than squamous alveolar cells.
- 12) Endothelial cells are thinner than squamous alveolar cells.  
a) macrophages b) neutrophils c) squamous cells d) cuboidal cells e) endothelial cells
- 13) What causes our lungs to expand?  
a) Relaxation of the diaphragm b) Contraction of abdominal muscles  
c) Air forcing its way into the lungs d) Contraction of the diaphragm
- 14) TRUE OR FALSE? A surfactant is a type of molecule that can reduce surface tension of water.
- 15) What type of molecule is used as a surfactant in the alveoli?  
a) protein b) triglyceride c) phospholipid d) fatty acid e) sodium
- 16) A clump of alveoli is a: a) lobule b) lobe c) bed d) bronchiole
- 17) TRUE or FALSE? Respiration is the act of breathing.
- 18) REVIEW: What is the pericardium? a) The muscle tissue of the heart.  
b) The wall that separates the two sides of the heart. c) The "bag" around the heart.
- 19) REVIEW: Which of these blood vessels goes to the lungs?  
a) the pulmonary veins b) the pulmonary arteries c) the aorta d) the superior vena cava
- 20) REVIEW: Which type of chamber is larger, atrium or ventricle? a) ventricle b) atrium

**QUIZ for "MAPPING THE BODY WITH ART" lesson 69** Name/Date \_\_\_\_\_

- 1) Which of these can the liver NOT do?  
a) Make amino acids    b) Make compliment factors for immune system    c) Make clotting proteins  
d) Make albumin proteins    e) Make antibodies (gamma globulins, those Y-shaped things)
- 2) Which of these functions can the liver NOT do?  
a) Make vitamins    b) Make amino acids    c) Make cholesterol    d) Make glucose    e) Make fats
- 3) What does the gall bladder do?  
a) Makes bile plus other digestive enzymes.    b) Makes bile for digestion.  
c) Stores bile that the liver makes.    d) Stores nutrients.
- 4) REVIEW: Which one of these does NOT go through the diaphragm?  
a) esophagus    b) trachea    c) descending aorta    d) inferior vena cava
- 5) Which of these blood vessels would you NOT find in the liver?  
a) pulmonary arteries    b) hepatic arteries    c) portal veins    d) hepatic veins    e) capillaries
- 6) Which of these does the descending aorta NOT connect to?  
a) the pancreas    b) the lungs    c) the spleen    d) the liver    e) the intestines
- 7) Where is the primary location for recycling of erythrocytes (red blood cells)?  
a) endothelial    b) hepatocytes    c) stellate cells    d) Kupffer cells
- 8) Why do hepatocytes have so much smooth endoplasmic reticulum?  
a) Because they need to repair other cells.    b) Because they have no Golgi bodies.  
c) Because they have polyploidy (double DNA).    d) Because they export many products for use outside the cell.  
e) Because they export many products for use outside the cell.
- 9) Where do you find Kupffer cells?  
a) In the space of Disse    b) In the sinusoid spaces    c) In the central veins  
d) In the hepatic arteries    e) In the bile canaliculi
- 10) What are triads made of?  
a) red cells, white cells, and macrophages    b) hepatic vein, hepatic artery, hepatic lymph duct  
c) portal vein, hepatic artery, bile canaliculus    d) arteries, veins and capillaries  
e) hepatocytes, endothelial cells, blood cells
- 11) TRUE or FALSE? The hepatic arteries are the liver's only source of oxygen.
- 12) Which of these connects to the inferior vena cava?  
a) hepatic veins    b) hepatic arteries    c) portal veins
- 13) Which of these organelles is responsible for getting rid of toxins?  
a) lysosomes    b) Golgi bodies    c) peroxisomes    d) ribosomes    e) smooth ER
- 14) Where does the gall bladder connect to the digestive system?  
a) small intestine    b) duodenum    c) large intestines    d) pancreas    e) esophagus    f) stomach
- 15) What do LDL and HDL do?  
a) Transport cholesterol    b) Make cholesterol    c) Break down cholesterol

**QUIZ for "MAPPING THE BODY WITH ART" lesson 70** Name/Date \_\_\_\_\_

- 1) What is the main purpose of villi?  
a) To increase surface area    b) To increase blood pressure  
c) To decrease surface tension    d) To increase circulation
- 2) TRUE or FALSE? All humans have two holes in their duodenum, one for bile and one for the pancreas.
- 3) TRUE or FALSE? The vagus nerve travels through the diaphragm alongside the esophagus.
- 4) TRUE or FALSE? The stomach has three muscles layers, whereas the rest of the digestive system has only two.
- 5) What do you call the inside of the duodenum (or the intestine)?  
a) the septum    b) the cavity    c) the intestinal space    d) the lumen
- 6) TRUE or FALSE? The vagus nerve has both afferent and efferent nerves.
- 7) TRUE or FALSE? A muscle fiber only contracts if a neuron tells it to.
- 8) What is peristalsis?  
a) The churning motion of the stomach.    b) The muscular action that moves food along the digestive tract.  
c) The release of digestive enzymes.    d) The action of a sphincter muscle.
- 9) When food is in the esophagus it is called a...    a) bolum    b) bolis    c) bolus    d) bolim
- 10) Medicines like aspirin and ibuprofen increase the risk of developing...  
a) high blood pressure.    b) a blood clot.    c) a tumor.    d) an ulcer.
- 11) Which one of these is NOT technically part of the gastric gland?  
a) pit cells    b) G cells    c) parietal cells    d) enteroendocrine cells
- 12) What do pit cells do?  
a) Release gastrin.    b) Release mucus.    c) Make hydrochloric acid.    d) Release hormones.
- 13) Which layer contains the most collagen?  
a) mucosa    b) submucosa    c) serosa    d) muscularis
- 14) What does the serosa do?  
a) Makes serum to drain into plasma.    b) Makes collagen to attach to muscles.  
c) Makes mucus to protect the stomach.    d) Makes fluid to keep everything lubricated.
- 15) TRUE or FALSE? Serosa is only found around the digestive organs.
- 16) REVIEW: Which of these can the liver NOT do?  
a) Make red blood cells    b) Make amino acids    c) Make cholesterol    d) Make glucose    e) Make fats
- 17) REVIEW: Which do you want more of in your blood, HDL or LDL?    a) HDL    b) LDL
- 18) REVIEW: How is most of your carbon dioxide transported back to the lungs?  
a) As gas molecules in the blood.    b) As bicarbonate molecules in the blood.  
c) Attached to red blood cells.    d) As separate carbon and oxygen molecules in the blood.
- 19) What enzyme is (primarily) responsible for breaking down proteins in the stomach?    a) gastrin    b) pepsin    c) HCl
- 20) TRUE or FALSE? Sphincter muscles are normally contracted all the time and only relax when they are signaled to do so.

**QUIZ for "MAPPING THE BODY WITH ART" lesson 71** Name/Date \_\_\_\_\_

- 1) Are islets of Langerhans exocrine or endocrine cells?    a) endocrine    b) exocrine
- 2) Which one of these is used to neutralize stomach acid?  
a) lipase    b) amylase    c) trypsin    d) pepsin    e) sodium bicarbonate
- 3) Which one of these breaks down fats?  
a) lipase    b) amylase    c) trypsin    d) pepsin    e) gastrin
- 4) Which one of these breaks apart DNA?  
a) amylase    b) protease    c) nuclease    d) lipase    e) chymotrypsin
- 5) What are the acini?  
a) groups of exocrine cells    b) groups of endocrine cells
- 6) TRUE or FALSE? The bile duct has a sphincter muscle at the point where it enters the duodenum.
- 7) Which type of cell makes insulin?  
a) alpha cells    b) beta cells    c) gamma cells    d) delta cells
- 8) Type 1 diabetes is caused by T cells attacking this type of cell.  
a) alpha cells    b) beta cells    c) acini    d) delta cells
- 9) Which type of cell decreases (stops) production of digestive enzymes?  
a) alpha cells    b) beta cells    c) acini    d) delta cells
- 10) Which one of these signals cells to put more glucose into the blood?  
a) secretin    b) somatostatin    c) insulin    d) glucagon
- 11) What do organs primarily use to communicate with each other?  
a) somatostatin    b) ions    c) hormones    d) enzymes    e) proteases
- 12) Which of these types of glands secretes its products into ducts?  
a) endocrine    b) exocrine

**QUIZ for "MAPPING THE BODY WITH ART" lesson 72** Name/Date \_\_\_\_\_

- 1) TRUE or FALSE? The main purpose of the villi and microvilli is to increase surface area.
- 2) TRUE or FALSE? All the cells that line the digestive tract produce both mucus and digestive enzymes.
- 3) TRUE or FALSE? All nutrients, once they are broken down into their smallest parts, go into the blood.
- 4) TRUE or FALSE? The ileum is shorter than the jejunum.
- 5) TRUE or FALSE? The jejunum has stronger peristalsis than the ileum.
- 6) The ileum attaches to the:  
a) sigmoid colon    b) transverse colon    c) cecum    d) rectum    e) duodenum
- 7) What is the serosa called when it goes around an organ?  
a) parietal peritoneum    b) visceral peritoneum    c) mesentery    d) mucosa
- 8) What does visceral mean?    a) organs    b) around    c) wrapping    d) inside the body    e) loose connective tissue
- 9) What are plicae circulares?  
a) bands of muscle on the colon    b) finger-like projections  
c) layers of connective tissue    d) circular folds
- 10) What goes into a lacteal?  
a) glucose    b) chylomicrons    c) peptides    d) all of these
- 11) What is the correct order for these words (passing through the digestive system)?  
a) bolus, chyme, feces, stool    b) chyme, bolus, stool, feces    c) bolus, chyme, stool, feces
- 12) Which of these does the colon NOT reabsorb?  
a) vitamins    b) glucose    c) water    d) minerals
- 13) Where would you find digestive stem cells?  
a) in the lamina propria    b) on a brush border    c) on top of a villus    d) in a crypt
- 14) Which one of these can a digestive stem cells turn into?  
a) paneth cell    b) enteroendocrine cell    c) enterocyte    d) goblet cell    e) any of these
- 15) TRUE or FALSE? The villi have microscopic muscles under and into them.
- 16) Where would you find Peyer's patches?  
a) ileum    b) jejunum    c) colon    d) duodenum
- 17) Peyer's patches are made of what type of tissue?  
a) connective    b) lymph    c) epithelial    d) nervous
- 18) Which one of these absorbs bile salts so the liver can recycle them?  
a) ileum    b) jejunum    c) colon    d) duodenum
- 19) REVIEW: Which one of these is NOT a type of protease?  
a) trypsin    b) chymotrypsin    c) maltase    d) pepsin
- 20) REVIEW: Which one of these is NOT a hormone?  
a) secretin    b) gastrin    c) CCK    d) pepsin

**QUIZ for "MAPPING THE BODY WITH ART" lesson 73** Name/Date \_\_\_\_\_

- 1) Which one of these is NOT a body cavity?  
a) spinal   b) cranial   c) pelvic   d) abdominal   e) thoracic   f) mesenteric
- 2) Which of these organs is retroperitoneal?  
a) stomach   b) spleen   c) kidneys   d) liver   e) intestines   f) heart
- 3) Which one of these is NOT in the abdominal cavity?  
a) stomach   b) spleen   c) kidneys   d) urinary bladder   e) intestines   f) heart
- 4) Which of these is smaller?  
a) the mediastinum   b) the pericardial cavity
- 5) Which of these cavities contains the lungs?  
a) pericardial   b) pleural   c) abdominal   d) mediastinum
- 6) Which of these attaches to the liver?  
a) lesser omentum   b) greater omentum   c) mesocolon   d) parietal peritoneum
- 7) What two things make a serous membrane?  
a) columnar cells and connective tissue   b) simple squamous cells and connective tissue  
c) two layers of connective tissue   d) simple squamous cells and serous fluid   c) connective tissue and blood vessels
- 8) Which of these blood vessels is found in the mesocolon?  
a) hepatic portal vein   b) inferior vena cava   c) descending aorta  
d) superior mesenteric artery   e) pulmonary artery
- 9) TRUE or FALSE? The mesocolon does not contain any lymph nodes.
- 10) TRUE or FALSE? The greater omentum lies like an apron across the front of the small intestines.
- 11) TRUE or FALSE? The diaphragm separates the abdominal cavity from the pelvic cavity.
- 12) Which one of these looks ruffly?   a) mesentery   b) parietal peritoneum   c) mesocolon   d) visceral peritoneum
- 13) What is serous membrane called when it wraps around organs?  
a) visceral peritoneum   b) parietal peritoneum   c) mesentery   d) omentum
- 14) TRUE or FALSE? The mesentery (including the mesocolon) provides a surface to which blood vessels can attach.
- 15) TRUE or FALSE? The organs get wrapped in membrane as they are forming during the first few months of an embryo's development.
- 16) REVIEW: What goes into a lacteal?  
a) chylomicrons   b) glucose   c) peptides   d) all of these
- 17) REVIEW: Which of these does the colon not reabsorb?  
a) water   b) glucose   c) minerals   d) vitamins
- 18) REVIEW: Which type of glands secrete their products into ducts?   a) exocrine   b) endocrine
- 19) REVIEW: Which of these tells cells to put more glucose into the blood?  
a) somatostatin   b) secretin   c) insulin   d) glucagon
- 20) REVIEW: TRUE or FALSE? The main purpose of villi and microvilli is to increase surface area.

**QUIZ for "MAPPING THE BODY WITH ART" lesson 74** Name/Date \_\_\_\_\_

- 1) Which of these is microscopic? a) nephron b) renal pyramid c) renal cortex d) ureter
- 2) Which type of epithelial cell is found nowhere else in the body, only in the bladder?  
a) cuboidal b) transitional c) columnar d) squamous e) pseudostratified
- 3) What does the glomerulus do?  
a) Reabsorbs salt b) Produces urea c) Reabsorbs water d) Filters out tiny molecules
- 4) Which of these molecules would be too large to be filtered out by the podocytes?  
a) calcium ions b) albumin c) glucose d) amino acids e) urea
- 5) What gland is located under the bladder in males? a) prostate b) prostrate c) testis d) adrenal
- 6) Which one of these is NOT a function of the kidneys?  
a) Monitoring salt level in the blood. b) Converting vitamin D to its active form.  
c) Maintaining proper pH balance in the blood. d) Turning ammonia into urea.  
e) Filtering urea out of the blood.
- 7) Which is the "problem" atom in an amino acid? (hard to get rid of) a) N b) C c) O d) H
- 8) What enzymes does the kidney secrete when it senses that the blood pressure (blood volume) is too low?  
a) aldosterone b) angiotensin c) renin d) erythropoietin
- 9) Which of these word roots does NOT mean something to do with the kidneys? a) angio- b) ren- c) nephr-
- 10) What is special about transitional epithelial cells? a) They are very large. b) They stretch.  
c) They metabolize amino acids. d) They have microvilli. e) They have cilia.
- 11) What happens in the convoluted tubules?  
a) Blood is filtered. b) Water is pulled out of the capillaries. c) Water is reabsorbed into the capillaries.
- 12) Where would you find these cells? a) inside convoluted tubules b) inside collecting ducts  
c) inside capillaries d) inside Bowman's capsule
- 13) What is that thing sitting on top of the kidney?  
a) pituitary gland b) adrenal gland c) prostate gland d) thyroid gland e) thymus gland
- 14) About how long is the urethra in females? (cm= centimeters, mm= millimeters)  
a) 1 cm b) 4 cm c) 4 mm d) 20 cm e) 20 mm
- 15) The loop of Henle is located in the kidney's... a) medulla b) cortex
- 16) Which comes out of the kidney? a) ureter b) urethra
- 17) What happens in the loop of Henle?  
a) Salt and water both come into the loop. b) Salt and water both go out of the loop.
- 18) What does erythropoietin do?  
a) Tells stem cells to make more red blood cells. b) Tells stem cells to make fewer red blood cells.  
c) Brings immune cells into nephron, d) Promotes increased blood pressure. e) Tells the adrenals to make aldosterone.
- 19) What part of the nephron monitors blood pressure and will try to increase it if it is low?  
a) In the Bowman's capsule. b) Where the proximal tube crosses the distal tube.  
c) Where distal tube touches the incoming arteriole. d) In the glomerulus. e) In the loop of Henle.
- 20) Which kidney is slightly higher? a) left b) right

**QUIZ for "MAPPING THE BODY WITH ART" lesson 75** Name/Date \_\_\_\_\_

- 1) TRUE or FALSE? Younger osteons are complete circles, older ones are partial circles.
- 2) What is the outer covering of the bone called?  
a) parietal    b) peritoneum    c) pericardium    d) periosteum
- 3) TRUE or FALSE? The epiphyseal plate is where bone growth occurs.
- 4) TRUE or FALSE? Hyaline cartilage is well-supplied with capillaries.
- 5) TRUE or FALSE? The medullary cavity is filled with red marrow.
- 6) Which cell dissolves bone tissue?  
a) osteocytes    b) osteoblasts    c) osteoclasts
- 7) Which word best describes the nutrient foramen?  
a) wall    b) hole    c) cavity    d) plate
- 8) TRUE or FALSE? Adults have more yellow marrow than children do.
- 9) When you have a lot of H<sup>+</sup> ions, you have...  
a) a lot of water molecules    b) a base    c) an acid    d) none of these
- 10) Which cell makes collagen?  
a) fibroblasts    b) osteoblasts    c) osteoclasts    d) stem cells

**QUIZ for "MAPPING THE BODY WITH ART" lesson 76** Name/Date \_\_\_\_\_

- 1) Where do you find sutures? a) rib cage b) cranium c) hands d) hip and knee
- 2) Where do you find the ethmoid bone? a) hand b) ear c) nose d) neck e) bottom of skull
- 3) Which one of these is NOT in the leg? a) fibulla b) tibia c) patella d) femur e) ulna
- 4) How many pairs of ribs are attached to the costal cartilage? a) 1 b) 2 c) 10 d) 12
- 5) What is the correct name for the collar bone?  
a) clavicle b) patella c) scapula d) xiphoid process e) sternum
- 6) Which of these pairs is unrelated?  
a) ulna and radius b) femur and humerus c) tibia and fibula  
d) clavicle and scapula e) carpals and phalanges
- 7) Which bone looks a little like a butterfly? a) zygomatic b) mandible c) sphenoid d) ethmoid e) clavicle
- 8) Which bone holds teeth? a) maxilla b) zygomatic c) sphenoid d) ethmoid
- 9) Which of these cranium bones is NOT named after a lobe of the brain?  
a) parietal b) temporal c) sphenoid d) occipital e) frontal
- 10) In which of these would you NOT find spongy marrow?  
a) costal cartilage b) ilium c) tibia d) ischium e) xiphoid process
- 11) Where does the coccyx get its name?  
a) from a plant b) from a body part c) from a Greek god d) from a bird
- 12) How many vertebrae are in the thoracic grouping? a) 4 b) 5 c) 7 d) 10 e) 12
- 13) The atlas and the axis belong to which group of vertebrae?  
a) lumbar b) cervical c) thoracic d) lumbar e) coccyx
- 14) What does the styloid process do?  
a) Protects in-coming blood vessels and nerves. b) Keeps ligaments from slipping around.  
c) Serves as an anchor point for muscles and tendons. d) It doesn't do anything.
- 15) How many vertebrae are there in all, counting the fused ones? a) 22 b) 24 c) 28 d) 33 e) 40
- 16) Here's an analogy puzzle: Ilium is to coxal bone, as temporal bone is to \_\_\_\_\_.  
a) temporal lobe b) ear c) mandible d) pelvis e) cranium
- 17) Which bones are right next to each other?  
a) metacarpals and phalanges b) carpals and phalanges c) tarsals and phalanges  
d) lumbar vertebrae and coccyx e) sternum and ribs
- 18) REVIEW: Which of these cells dissolves bones tissue to release calcium into the blood?  
a) osteoclasts b) osteoblasts c) osteocytes
- 19) REVIEW: What is at the center of an osteon? a) red marrow b) yellow marrow  
c) veinule, arteriole, nerve, lymph vessel d) stem cells and osteocytes
- 20) REVIEW: What is the site of bone growth?  
a) medullary cavity b) epiphyseal plate c) diaphysis d) epiphysis e) periosteum

**QUIZ for "MAPPING THE BODY WITH ART" lesson 77** Name/Date \_\_\_\_\_

- 1) All of these are fibrous joints except one. Which one is NOT a fibrous joint?  
a) pubic symphysis    b) sutures in skull    c) teeth in sockets  
d) ends of tibia and fibula    e) ends of ulna and radius
- 2) Which of these is NOT a synovial joint?  
a) ball and socket    b) hinge    c) pivot    d) trapezoidal    e) saddle    f) plane    g) ellipsoidal
- 3) What is on the ends of the bones of synovial joints?  
a) loose connective tissue    b) nerve endings    c) epithelial tissue    d) fibrous cartilage  
e) blood vessels    f) hyaline cartilage
- 4) Which of these bones is NOT part of the shoulder joint?  
a) scapula    b) humerus    c) sternum    d) acromion    e) clavicle
- 5) Which of these bones is NOT found in the pelvis?  
a) ilium    b) thoracic vertebra    c) coccyx    d) ischium    e) sacrum    f) lumbar vertebrae
- 6) Which of these is NOT a bone of the skull?  
a) hyoid bone    b) styloid bone    c) occipital bone    d) mastoid process    e) maxilla    f) zygomatic bone
- 7) TRUE or FALSE? Only females have a pubic symphysis joint.
- 8) TRUE or FALSE? Fat can be found in some joints.
- 9) TRUE or FALSE? The acromion process is part of the scapula bone.
- 10) Between which two bones would you find the interosseus membrane?  
a) carpals and phalanges    b) ulna and radius    c) femur and tibia  
d) frontal bone and parietal bone    e) sacrum and ilium
- 11) Which of these connects bone to bone?    a) ligament    b) tendon
- 12) Which of these is NOT involved in cushioning the interior of joints? (absorbing shock and helping to reduce friction)  
a) synovial fluid    b) hyaline cartilage    c) ligaments    d) bursa    e) fat
- 13) Which of these provides a concave (curved inward) shape for the bottom of the femur?  
a) meniscus    b) cruciate ligament    c) synovial fluid    d) pad of fat    e) bursa
- 14) Which of these bones helps to provide mechanical advantage in the knee joint?  
a) tibia    b) patella    c) femur    d) fibula
- 15) How did the cruciate ligaments get their name?  
a) They were discovered by an Italian scientist whose last name was Crucia.  
b) They are crucial to knee function.    c) They cross in the middle of the knee.
- 16) REVIEW: Where do you find transitional epithelium?    a) bladder    b) lungs    c) skin    d) heart    e) mouth
- 17) REVIEW: What goes into a lacteal?    a) water molecules    b) sugars    c) fats    d) proteins    e) red blood cells
- 18) REVIEW: Which of these white blood cells is part of your adaptive (acquired) immune system?  
a) eosinophils    b) neutrophils    c) basophils    d) lymphocytes

**QUIZ for "MAPPING THE BODY WITH ART" lesson 78** Name/Date \_\_\_\_\_

- 1) Which of these is the preferred source of energy for skeletal muscles?  
a) cellular respiration    b) creatine phosphate    c) fermentation    d) glycolysis
- 2) TRUE or FALSE? The tibialis anterior is the antagonist for the hamstring group.
- 3) TRUE or FALSE? The antagonist for the tibialis anterior is the gastrocnemius.
- 4) TRUE or FALSE? Skeletal muscles can only do one thing: contract.
- 5) TRUE or FALSE? Cardiac muscles have no individual cells.
- 6) TRUE or FALSE? A pyruvate is essentially one half of a glucose molecule.
- 7) Which of these is part of an intercalated disc?    a) spindle    b) basal lamina    c) T tubule    d) gap junction
- 8) When you move your arm away from your body, this motion is called:  
a) extension    b) flexion    c) abduction    d) adduction    e) circumduction
- 9) When you bend your elbow and bring your hand up to your shoulder, this action is called:  
a) extension    b) flexion    c) abduction    d) adduction    e) circumduction
- 10) Creatine is made from:  
a) amino acids    b) fatty acids    c) sugars    d) nucleic acids    e) a mixture of all these
- 11) What molecular group does creatine hold on to?    a) H<sub>2</sub>O    b) PO<sub>3</sub>    c) CO<sub>2</sub>    d) O<sub>2</sub>    e) COOH
- 12) Which of these is NOT done by smooth muscles?  
a) blood pressure adjusting as you stand up    b) eyes adjusting to dark room  
c) peristalsis    d) tongue moving while you are talking
- 13) Which type of muscles have Z bands?  
a) smooth    b) skeletal
- 14) Which is the most efficient method of producing ATPs?    a) creatine    b) cellular respiration    c) fermentation
- 15) What is the primary source of glucose for cellular respiration in skeletal muscles?  
a) glycerol    b) glycolysis    c) glycogen    d) glycine
- 16) REVIEW: What happens when ATP attaches to myosin?  
a) The myosin head lets go of the actin strand.    b) The myosin head grabs the actin strand.  
c) Calcium binds to troponin.    d) The myosin head gives a push along the actin strand.
- 17) REVIEW: What do you call the space between two Z lines?  
a) sarcoplasm    b) sarcomere    c) sarcolemma    d) T tubule    e) myofibril
- 18) REVIEW: Why do cells need oxygen?  
a) To provide clean air inside the cell.    b) To make tired electrons into water molecules at the end of the ETC.  
c) To provide energy for the electrons that go through the ETC.    d) To power the NADH shuttle buses.
- 19) REVIEW: What cell part stores calcium ions inside a muscle fiber?  
a) sarcoplasm    b) sarcomere    c) sarcolemma    d) sarcoplasmic reticulum
- 20) REVIEW: What do the calcium ions bind to?    a) troponin    b) actin    c) myosin

**QUIZ for "MAPPING THE BODY WITH ART" lesson 79** Name/Date \_\_\_\_\_

- 1) What muscle allows you sit cross-legged on the floor (like a tailor)?  
a) external oblique   b) gluteus maximus   c) quadriceps group   d) hamstring group   e) sartorius
- 2) Which muscle is shaped like the Greek letter D?  
a) sartorius   b) masseter   c) pectoralis major   d) trapezius   e) deltoid
- 3) Which one of these muscles is NOT named after the bone underneath it?  
a) gastrocnemius   b) zygomaticus   c) occipitalis   d) frontalis   e) tibialis anterior
- 4) Which one of these bones is the sternocleidomastoid NOT connected to?  
a) sternum   b) styloid process   c) clavicle   d) mastoid process
- 5) Which one of these muscles is NOT found in the lower limbs?  
a) extensor carpi   b) sartorius   c) tibialis anterior   d) gastrocnemius   e) quadriceps
- 6) What does "rectus" mean?  
a) bottom   b) open   c) straight   d) rectangular   e) back
- 7) Which one of these muscles is NOT found in the head?  
a) masseter   b) occipitalis   c) orbicularis oculi   d) orbicularis oris   e) pectoralis   f) zygomaticus
- 8) Which one of these words is NOT directly related to a Greek or Latin word for a body part?  
a) oculi   b) gluteus   c) dorsi   d) latissimus   e) pectoralis   f) abdominis   g) digit   h) brachii
- 9) Which kind of exercise are you doing if you put your palms together, push them hard against each other, and hold it for as long as your can?  
a) isotonic   b) isometric
- 10) What muscle do you use to shake your head "no"?  
a) sternocleidomastoid   b) pectoralis major   c) zygomaticus   d) masseter   e) deltoid
- 11) TRUE or FALSE? When you stand on your toes, your gastrocnemius is the primary muscle that gets a work out.
- 12) TRUE or FALSE? In this lesson we learned the names of every muscle in the body.
- 13) If you give someone a hug, which muscles is least likely to get used?  
a) tibialis anterior   b) pectoralis major   c) rectus abdominis   d) external oblique   e) biceps brachii
- 14) You are pounding nails using a hammer. Which muscle are you probably using the least?  
a) flexor digitorum   b) biceps brachii   c) gluteus maximus   d) triceps brachii   e) deltoid   f) trapezius
- 15) When the biceps shorter, the angle of the elbow...   a) increases.   b) decreases.
- 16) REVIEW: Which of these is the first choice of energy source for skeletal muscles?  
a) cellular respiration   b) fermentation   c) creatine
- 17) TRUE or FALSE? Muscles don't contribute at all to protection of internal organs.
- 18) REVIEW: TRUE or FALSE? When you are sore the day after hard exercise, it is because of lactic acid in the tissues.
- 19) REVIEW: TRUE or FALSE? The skeletal muscles help the lymphatic system.
- 20) Which one of these is NOT a function of the skeletal muscles?  
a) Generate body heat.   b) Protect organs.   c) Move skin.   d) Move bones.   e) Move lymph fluid.   f) Coordinate movement.

**QUIZ for "MAPPING THE BODY WITH ART" lesson 80** Name/Date \_\_\_\_\_

- 1) Which one of these can go right through the plasma membrane?  
a) peptide hormones    b) steroid hormones
- 2) When ATP loses two phosphates, it becomes...    a) ADP    b) AMP    c) high energy    d) useless
- 3) Which gland helps to regulate your sleep cycle?    a) pineal    b) pancreas    c) thyroid    d) adrenal
- 4) Which two glands affect the osteoblasts in bone?  
a) pituitary and hypothalamus    b) pancreas and adrenals    c) thymus and thyroid    d) thyroid and parathyroid
- 5) Which two glands exert control over the level of glucose in the blood?  
a) pituitary and hypothalamus    b) ovaries and testis    c) pancreas and adrenal cortex
- 6) Which one of these is NOT located in the brain area?    a) pineal    b) thyroid    c) pituitary    d) hypothalamus
- 7) Which of these glands is most active during childhood?  
a) pineal    b) thymus    c) thyroid    d) pancreas
- 8) TRUE or FALSE? Peptide hormones usually start a cascade reaction inside a cell.\
- 9) TRUE or FALSE? Hormones leak out of capillaries.
- 10) TRUE or FALSE? Peptide hormones never go inside cells.
- 11) REVIEW: TRUE or FALSE? Glucagon tells the pancreas to pull glucose out of the blood.
- 12) REVIEW: TRUE or FALSE? The pancreas makes enzymes that digest fats.
- 13) REVIEW: TRUE or FALSE? The thymus is supposed to kill any T cells that will attack body cells.
- 14) REVIEW: Which cell part uses mRNA to manufacture proteins from amino acids?  
a) Golgi bodies    b) ribosomes    c) mitochondria    d) lysosomes    e) centrosomes    f) rough ER
- 15) REVIEW: Enzymes fit into their \_\_\_\_\_ like a key fits into a lock.  
a) supports    b) peptides    c) membranes    d) substrates    e) cofactors

**QUIZ for "MAPPING THE BODY WITH ART" lesson 81** Name/Date \_\_\_\_\_

- 1) Which of these is NOT something the anterior pituitary makes?  
a) follicle stimulating hormone    b) thyroid stimulating hormone    c) growth hormone    d) oxytocin
- 2) In which of these would you find hormones being secreted by neuroendocrine cells?  
a) anterior pituitary    b) posterior pituitary
- 3) In what part of the brain do you find cells that are not blocked by the blood brain barrier and are allowed to "sample" the blood?  
a) mid-brain    b) hypothalamus    c) cerebrum    d) pons    e) pituitary
- 4) What cell gadget is produced when the hormone ADH sticks to kidney tube cells?  
a) aquaporin    b) ion channels    c) cytoskeleton    d) Golgi bodies    e) motor proteins
- 5) What does the pineal gland do?  
a) Sorts out information coming from the senses.    b) Samples blood.  
c) Keeps track of night and day.    d) Keeps heart and lungs working.
- 6) Which organ does prolactin affect?    a) uterus    b) ovaries    c) mammary glands
- 7) Which of these is stimulating by growth hormone?  
a) the breakdown of fatty acids    b) helps to build muscle    c) growth (in children and teens)  
d) maintains Islets of Langerhans in pancreas    e) proper functioning of thyroid    f) all of these
- 8) What brain part controls the pituitary?  
a) pineal gland    b) pons    c) hypothalamus    d) thalamus
- 9) Which brain part has its own little protective pocket made of bone?  
a) thalamus    b) hypothalamus    c) pineal    d) pituitary
- 10) REVIEW: Which type of hormone goes INSIDE the cell to find its target?  
a) steroid hormones    b) peptide hormones
- 11) The hypothalamus connects:  
a) our thinking brain to our chemical needs    b) our nervous system to our circulatory system  
c) our cerebrum to our cerebellum    d) our brain stem to our thinking brain
- 12) This hormone is secreted in greater abundance at night while you are asleep.  
a) FSH    b) LH    c) ADH    d) GH
- 13) TRUE or FALSE?    Our thoughts and feelings can affect our body chemistry.
- 14) TRUE or FALSE?    The posterior pituitary makes 6 hormones.
- 15) REVIEW: Which one of these is NOT an endocrine gland?  
a) pancreas    b) sweat gland    c) thyroid    d) thymus    e) pituitary    f) adrenal gland

**QUIZ for "MAPPING THE BODY WITH ART" lesson 82** Name/Date \_\_\_\_\_

- 1) TRUE or FALSE? Calcitonin slows down osteoclasts.
- 2) Which of these elements does the thyroid need in order to make T3 and T4?  
a) iron b) iodine c) fluorine d) sulfur e) calcium
- 3) Which one of these is NOT something affected by T3 and T4?  
a) heart rate b) sleep cycle c) hearing d) growth e) body temperature f) metabolism
- 4) How many "dots" make up the parathyroid? a) 1 b) 2 c) 4 d) 6
- 5) TRUE or FALSE? T3 and T4 are not needed by the body until after birth.
- 6) TRUE or FALSE? Hormones usually work in pairs, with one increasing something and the other decreasing it.
- 7) REVIEW: Which other body cell does an osteoclast most resemble?  
a) macrophage b) neutrophil c) lymphocyte d) erythrocyte e) fibroblast
- 8) REVIEW: What two things does an osteoclast release into bone tissue to dissolve it?  
a) glucose and fatty acids b) oxygen and hydrogen ions  
c) hyaluronic acid and collagen d) hydrogen ions and collagenase
- 9) What percentage of T3 and T4 will attach themselves to a protein taxi while in the blood?  
a) less than 1 percent b) about 50 percent c) exactly 90 percent d) over 99 percent
- 10) TRUE or FALSE? Protein taxis for T3 and T4 allow these hormones to be safely stored in the blood.
- 11) REVIEW: Which of these makes collagen?  
a) osteoblasts b) osteoclasts c) fibroblasts d) melanocytes e) dendritic cells
- 12) Bones gain and lose calcium all the time. This process is called:  
a) remodeling b) restoring c) refinishing d) reconstruction
- 13) REVIEW: What is the basic unit of the kidney?  
a) urethra b) collecting tubule c) nephron d) glomerulus
- 14) REVIEW: Which of these kidney parts is smallest?  
a) glomerulus b) nephron c) pyramid
- 15) What vitamin is necessary for the intake of calcium in the intestines?  
a) A b) B c) C d) D e) E

**QUIZ for "MAPPING THE BODY WITH ART" lesson 83** Name/Date \_\_\_\_\_

- 1) TRUE or FALSE? Adrenaline and epinephrine are the same thing.
- 2) TRUE or FALSE? Adrenaline and noradrenaline do completely opposite things.
- 3) Which two glands exert control over the level of glucose in the blood?  
a) pituitary and hypothalamus    b) adrenal cortex and adrenal medulla  
c) pancreas and adrenal cortex    d) pituitary and adrenal medulla
- 4) What enzyme does the kidney secrete when it senses that the blood pressure (blood volume) is too low?  
a) aldosterone    b) angiotensin    c) adrenaline    d) renin
- 5) Which one of these does aldosterone NOT affect?  
a) kidneys    b) liver    c) salivary glands    d) sweat glands    e) colon
- 6) TRUE or FALSE? Aldosterone decreases blood pressure.
- 7) TRUE or FALSE? Aldosterone is a glucocorticoid.
- 8) TRUE or FALSE? Cortisol only affects cells in the reproductive organs.
- 9) TRUE or FALSE? Cortisol can be made artificially by pharmaceutical companies.
- 10) TRUE or FALSE? Cortisol is a type of glucocorticoid.
- 11) Which organ contains the "sensor" for detecting when blood pressure is too high?  
a) liver    b) kidneys    c) heart    d) adrenal glands    e) brain
- 12) How many "zones" are in the adrenal gland?    a) 2    b) 3    c) 4    d) 6
- 13) TRUE or FALSE? An increase in blood volume can create an increase in blood pressure.
- 14) An increase in the excretion (elimination) of salts from the body (in urine) will decrease blood pressure because \_\_\_\_\_ will follow the salts, thus decreasing blood volume.  
a) water molecules    b) red blood cells    c) renin    d) aldosterone
- 15) Which one of these is NOT part of the "fight or flight" response created by adrenaline?  
a) heart rate increases    b) pupils of eye get larger    c) jaw tightens    d) glucose level in blood goes up  
e) blood vessels narrow (constrict)    f) muscles relax    g) salivary glands stop secreting

**QUIZ for "MAPPING THE BODY WITH ART" lesson 84** Name/Date \_\_\_\_\_

- 1) Which one of these does the sympathetic system NOT do?  
a) stimulates adrenals    b) dilates bronchioles    c) speeds up heart  
d) inhibits digestion    e) constricts pupils
- 2) Which one of these does the parasympathetic system NOT do?  
a) stimulates tear production    b) inhibits salivation    c) constricts bronchioles  
d) stimulates digestion    e) slows down heart rate
- 3) TRUE or FALSE? The parasympathetic nerves come out of only the top and bottom of the spine.
- 4) TRUE or FALSE? The vagus nerve is a cranial nerve.
- 5) TRUE or FALSE? Nerves from the lumbar area innervate the bladder.
- 6) How many neurons are needed to send an impulse in the autonomic nervous system?  
a) 1    b) 2    c) 4    d) about a dozen
- 7) TRUE or FALSE? The autonomic nervous system is part of the central nervous system.
- 8) Which one of these has a long ganglion cord?    a) sympathetic    b) parasympathetic
- 9) TRUE or FALSE? The reproductive system are not connected to the autonomic nervous system.
- 10) TRUE or FALSE? This lesson is a complete list of everything the autonomic nervous system does.
- 11) REVIEW: What does the pineal gland do?  
a) Sorts out information coming from the senses.    b) Samples blood.  
c) Keeps track of night and day.    d) Keeps heart and lungs working.
- 12) REVIEW: Which of these glands is most active during childhood?  
a) pineal    b) thymus    c) thyroid    d) pancreas
- 13) REVIEW: What does "rectus" mean?  
a) bottom    b) open    c) straight    d) rectangular    e) back
- 14) REVIEW: Which one of these is NOT in the leg?    a) fibula    b) tibia    c) patella    d) femur    e) ulna
- 15) REVIEW: Which one of these breaks down fats?  
a) lipase    b) amylase    c) trypsin    d) pepsin    e) gastrin

**QUIZ for "MAPPING THE BODY WITH ART" lesson 85** Name/Date \_\_\_\_\_

- 1) TRUE or FALSE? The bulbourethral gland lies inside the prostate gland.
- 2) TRUE or FALSE? Sperm need to be kept cool.
- 3) Which of these words is Greek for "leather bag"?  
a) epididymis    b) scrotum    c) testis    d) urethra
- 4) TRUE or FALSE? Semen is pretty simple, just sperm in a watery fluid.
- 5) Which of these structures stores mature sperm for several weeks?  
a) seminal vesicle    b) vas deferens    c) testis    d) epididymis
- 6) TRUE or FALSE? The prostate helps to close off the urethra to ensure that urine never comes into contact with sperm.
- 7) Which of these glands makes the largest volume of fluid?  
a) prostate    b) seminal vesicle    c) bulbourethral    d) testis
- 8) Which cells nourish the developing sperm?    a) Sertoli cells    b) Leydig cells
- 9) Which order is correct?  
a) spermatogonia, spermatid, spermatocyte, spermatozoa  
b) spermatocyte, spermatid, spermatogonia, spermatozoa  
c) spermatogonia, spermatocyte, spermatid, spermatozoa
- 10) How many sperm are produced per second?  
a) a few    b) dozens    c) hundreds    d) thousands
- 11) Which of these contains the urethra?  
a) corpus cavernosum    b) corpus spongiosum
- 12) What has ultimate control over the reproductive system?  
a) testes    b) hypothalamus    c) pituitary    d) testosterone
- 13) Which one of these is used for urinary functions only?  
a) ureter    b) vas deferens    c) urethra    d) prostate
- 14) REVIEW: What is peristalsis?  
a) The churning motion of the stomach.    b) The muscular action that moves food along the digestive tract.  
c) The release of digestive enzymes.    d) The action of a sphincter muscle.
- 15) REVIEW: Which is the most efficient method of producing ATPs?  
a) creatine    b) fermentation    c) cellular respiration

**QUIZ for "MAPPING THE BODY WITH ART" lesson 86** Name/Date \_\_\_\_\_

- 1) Which one of these is NOT a part of the female reproductive system?  
a) uterus   b) vagina   c) clitoris   d) urethra   e) cervix
- 2) TRUE or FALSE? The uterus walls contain extremely strong muscles.
- 3) If a gynecologist (a doctor who specializes in treating reproductive issues in women) is examining a patient, what will he/she NOT be able to actually see?  
a) vagina   b) clitoris   c) uterus   d) labia minora   e) labia majora
- 4) TRUE or FALSE? The oviducts and the fallopian tubes are not the same parts.
- 5) Where does fertilization take place?  
a) ovary   b) oviducts   c) uterus   d) vagina
- 6) The top of the uterus is called the...  
a) fundus   b) cervix   c) endometrium   d) fimbriae   e) medulla
- 7) TRUE or FALSE? The "birth canal" is another name for the vagina.
- 8) TRUE or FALSE? All of a woman's oocytes (eggs) will eventually be expelled from the ovary during ovulation.
- 9) TRUE or FALSE? Estrogen, progesterone and testosterone have absolutely no effect on any body cells outside of the reproductive systems.
- 10) TRUE or FALSE? The follicles that contain the oocytes (eggs) actually produce hormones.
- 11) What does "corpus luteum" mean?  
a) disintegrating body   b) yellow body   c) soft body   d) follicular body   e) fertile body
- 12) What happens when the levels of estrogen and progesterone are very low?  
a) The uterus is at peak condition for implantation.   b) The ovary releases an egg.  
c) The endometrium becomes thicker.   d) The uterus sheds its lining.
- 13) TRUE or FALSE? The pituitary is under the control of the hypothalamus.
- 14) TRUE or FALSE? Since men do not have follicles in their reproductive tract, they do not produce FSH (follicle stimulation hormone).
- 15) TRUE or FALSE? The ovaries are attached to the uterus by a special ligament.

## ANSWERS for quizzes for Module 4 Organs

### ANSWERS FOR QUIZ 55

1) a      2) a      3) c      4) d      5) b      6) b      7) e      8) a      9) F      10) b  
11) d      12) d

### ANSWERS FOR QUIZ 56

1) a      2) d      3) b      4) c      5) a      6) b      7) c      8) a      9) a      10) b  
11) c      12) c      13) F      14) b      15) d

### ANSWERS FOR QUIZ 57

1) F      2) F      3) T      4) a      5) d      6) a      7) b      8) d      9) a      10) c  
11) c      12) T      13) b      14) T      15) d

### ANSWERS FOR QUIZ 58

1) b      2) d      3) d      4) c      5) a      6) d      7) T      8) F      9) T      10) a  
11) e      12) a      13) b      14) a      15) e

### ANSWERS FOR QUIZ 59

1) d      2) a      3) a      4) F      5) F      6) T      7) c      8) T      9) T      10) F  
11) c      12) T      13) d      14) a      15) T      16) a      17) a      18) d      19) d      20) b

### ANSWERS FOR QUIZ 60

1) d      2) a      3) b      4) c      5) a      6) F      7) d      8) T      9) b      10) b  
11) T      12) c      13) c      14) a      15) c      16) c      17) b      18) F      19) a      20) b

### ANSWERS FOR QUIZ 61

1) c      2) c      3) e      4) a      5) c      6) b      7) a      8) c      9) F      10) b  
11) c      12) d      13) b      14) c      15) b      16) a      17) T      18) a

### ANSWERS FOR QUIZ 62

1) c      2) b      3) a      4) d      5) c      6) d      7) T      8) b      9) b      10) a  
11) b      12) a      13) e      14) b      15) T      16) F      17) c      18) e      19) a      20) T

### ANSWERS FOR QUIZ 63

1) c      2) T      3) b      4) F      5) F      6) F      7) T      8) T      9) a      10) a  
11) d      12) b      13) c      14) a      15) a      16) e      17) d      18) a      19) b      20) T

### ANSWERS FOR QUIZ 64

1) b      2) T      3) c      4) a      5) F      6) b      7) d      8) c      9) d      10) a  
11) b      12) b      13) d      14) b      15) a      16) c      17) F      18) b      19) a      20) c

### ANSWERS FOR QUIZ 65

1) e      2) d      3) a      4) c      5) e      6) d      7) c      8) b      9) T      10) F  
11) c      12) d      13) b      14) e

**ANSWERS FOR QUIZ 66**

1) a      2) d      3) T      4) T      5) c      6) a      7) b      8) b      9) b      10) a  
11) c      12) d      13) b      14) e

**ANSWERS FOR QUIZ 67**

1) b      2) c      3) a      4) T      5) T      6) F      7) a      8) F      9) F      10) b  
11) b      12) d      13) a      14) b      15) d

**ANSWERS FOR QUIZ 68**

1) c      2) b      3) F      4) a      5) a      6) d      7) b      8) a      9) b      10) c  
11) F      12) a      13) d      14) T      15) c      16) a      17) F      18) c      19) b      20) a

**ANSWERS FOR QUIZ 69**

1) e      2) a      3) c      4) b      5) a      6) b      7) d      8) d      9) b      10) c  
11) F      12) a      13) c      14) b      15) a

**ANSWERS FOR QUIZ 70**

1) a      2) F      3) T      4) T      5) d      6) T      7) T      8) b      9) c      10) d  
11) a      12) b      13) b      14) d      15) F      16) a      17) a      18) b      19) b      20) T

**ANSWERS FOR QUIZ 71**

1) a      2) e      3) a      4) c      5) a      6) T      7) b      8) b      9) d      10) d  
11) c      12) b

**ANSWERS FOR QUIZ 72**

1) T      2) F      3) F      4) F      5) T      6) c      7) b      8) a      9) d      10) b  
11) c      12) b      13) d      14) e      15) T      16) a      17) b      18) a      19) c      20) d

**ANSWERS FOR QUIZ 73**

1) f      2) c      3) d      4) b      5) b      6) a      7) b      8) d      9) F      10) T  
11) F      12) a      13) a      14) T      15) T      16) a      17) b      18) a      19) d      20) T

**ANSWERS FOR QUIZ 74**

1) a      2) b      3) d      4) b      5) a      6) d      7) a      8) c      9) a      10) b  
11) c      12) d      13) b      14) b      15) a      16) a      17) b      18) a      19) c      20) a

**ANSWERS FOR QUIZ 75**

1) T      2) d      3) T      4) F      5) F      6) c      7) b      8) T      9) c      10) a

**ANSWERS FOR QUIZ 76**

1) b      2) c      3) e      4) c      5) a      6) b      7) c      8) a      9) c      10) a  
11) d      12) e      13) b      14) c      15) d      16) e      17) a      18) a      19) c      20) b

**ANSWERS FOR QUIZ 77**

1) a      2) d      3) f      4) c      5) b      6) a      7) F      8) T      9) T      10) b  
11) a      12) c      13) a      14) b      15) c      16) a      17) c      18) d

**ANSWERS FOR QUIZ 78**

1) b      2) F      3) T      4) T      5) F      6) T      7) d      8) c      9) b      10) a  
11) b      12) d      13) b      14) b      15) c      16) a      17) b      18) b      19) d      20) a

**ANSWERS FOR QUIZ 79**

1) e      2) e      3) a      4) b      5) a      6) c      7) e      8) d      9) b      10) a  
11) T      12) F      13) a      14) c      15) a      16) c      17) F      18) F      19) T      20) f

**ANSWERS FOR QUIZ 80**

1) b      2) b      3) a      4) d      5) c      6) a      7) b      8) T      9) T      10) T  
11) F      12) T      13) T      14) b      15) d

**ANSWERS FOR QUIZ 81**

1) d      2) b      3) b      4) a      5) c      6) c      7) f      8) c      9) d      10) a  
11) a      12) c      13) T      14) F      15) b

**ANSWERS FOR QUIZ 82**

1) T      2) b      3) c      4) c      5) F      6) T      7) a      8) d      9) d      10) T  
11) c      12) a      13) c      14) a      15) d

**ANSWERS FOR QUIZ 83**

1) T      2) F      3) c      4) d      5) b      6) F      7) F      8) F      9) T      10) T  
11) c      12) b      13) T      14) a      15) f

**ANSWERS FOR QUIZ 84**

1) e      2) b      3) T      4) T      5) F      6) b      7) F      8) a      9) F      10) F  
11) c      12) b      13) c      14) e      15) a

**ANSWERS FOR QUIZ 85**

1) F      2) T      3) b      4) F      5) d      6) T      7) b      8) a      9) c      10) d  
11) b      12) b      13) a      14) b      15) c

**ANSWERS FOR QUIZ 86**

1) d      2) T      3) c      4) F      5) d      6) a      7) T      8) F      9) F      10) T  
11) b      12) d      13) T      14) F      15) T