

N261 Human Anatomy
Lecture Exam #4

Name _____

1. The structure that connects the third ventricle to the fourth ventricle is called the _____.
 - a. central canal
 - b. cerebral aqueduct (aqueduct of midbrain)
 - c. dural sinus
 - d. interventricular foramen
 - e. lateral aperture
2. The _____ is a “fifth lobe” of the cerebrum buried within the lateral sulcus.
 - a. frontal lobe
 - b. olfactory area
 - c. insula
 - d. occipital lobe
 - e. temporal lobe
3. The superficial cerebral cortex is made up of _____ ; the deep portion of the cerebrum is composed of _____.
 - a. arbor vitae: gyri
 - b. gyri; sulci
 - c. arachnoid; pia mater
 - d. white matter; gray matter
 - e. gray matter; white matter
4. The auditory association area is located on the _____.
 - a. frontal lobe
 - b. olfactory area
 - c. insula
 - d. occipital lobe
 - e. temporal lobe
5. The primary somatosensory area is located _____.
 - a. on the postcentral gyrus
 - b. on the frontal lobe
 - c. on Broca’s area
 - d. on the precentral gyrus
 - e. none of these is correct
6. The neuronal fibers which connect cerebral neurons with those the contralateral cerebral hemisphere are called _____.
 - a. association fibers
 - b. commissural fibers
 - c. internal capsules
 - d. projection fibers
 - e. none of these is correct
7. Which of the following is not a function of the hypothalamus?
 - a. control of autonomic nervous system
 - b. control hunger and thirst
 - c. control respiration and cardiac activity
 - d. regulate endocrine system
 - e. control circadian (diurnal; daily) rhythms

8. Which of the following contains superior and inferior “colliculi”?
 - a. cerebellum
 - b. diencephalon
 - c. medulla oblongata
 - d. midbrain
 - e. pons
9. What does the thalamus do?
 - a. control autonomic nervous function
 - b. control starting, stopping, and intensity of voluntary movements
 - c. involuntary control of posture
 - d. receive/relay general sensory information to the cortex
 - e. regulate body temperature
10. Which of the following structures is not one of the basal nuclei?
 - a. caudate nucleus
 - b. globus pallidus
 - c. lentiform nucleus
 - d. olivary nucleus
 - e. all of these are basal nuclei
11. Where is the reticular formation found?
 - a. brainstem
 - b. cerebellum
 - c. cerebrum
 - d. diencephalon
 - e. all of the above
12. Which of the following structures contain(s) both olives and pyramids?
 - a. medulla oblongata
 - b. midbrain
 - c. pons
 - d. pons and medulla oblongata
 - e. midbrain, pons, and medulla oblongata
13. The falx cerebri is part of the _____ located in/on the _____.
 - a. pia mater; lateral fissure
 - b. arachnoid; parieto-occipital fissure
 - c. dura mater; longitudinal fissure
 - d. pia mater; longitudinal fissure
 - e. dura mater; straight sinus
14. Which of the following is part of the limbic system?
 - a. amygdala
 - b. corpus callosum
 - c. tectum
 - d. putamen
 - e. substantia nigra
15. What do dural sinuses contain?
 - a. blood
 - b. CSF
 - c. mucus
 - d. plasma
 - e. water

16. Most cerebrospinal fluid (CSF) is made by the _____.
- arachnoid villi
 - choroid plexuses
 - filum terminale
 - lateral apertures
 - septum pellucidum
17. Which of the following is not found on the cerebellum?
- arbor vitae
 - folia
 - gyri
 - vermis
 - all of these are found on the cerebellum
18. Which of the following tracts is a “dorsal (posterior) column pathway?”
- anterior corticospinal
 - anterior spinocerebellar
 - fasciculus cuneatus
 - lateral spinothalamic
 - vestibulospinal
19. The anterior spinothalamic tracts are _____ pathways that convey _____.
- ascending; pain and temperature information
 - ascending; proprioceptive information
 - descending; motor control of eye movement
 - descending; visceral motor control
 - none of these is correct
20. The spinocerebellar pathways are tracts which send information about _____ to the _____.
- pain and temperature; contralateral thalamus
 - subconscious proprioception; contralateral cerebellum
 - subconscious proprioception; ipsilateral cerebellum
 - touch, pressure, and proprioception; contralateral thalamus
 - touch, pressure, and proprioception; ipsilateral thalamus
21. The lateral corticospinal tracts _____.
- control voluntary body movements
 - control subconscious, coarse or postural movements.
 - relay inferior proprioceptive information
 - relay light touch information
 - none of these is correct
22. What is the function of cranial nerve number VI?
- carry afferent impulses for vision
 - control medial rectus eye muscle, iris, and ciliary muscle
 - control superior oblique muscle
 - control lateral rectus muscle
23. What are the names of cranial nerves IV to VI?
- facial, glossopharyngeal, vagus
 - facial, vestibulocochlear, accessory
 - optic, trochlear, trigeminal
 - trigeminal, trochlear, abducens
 - trochlear, trigeminal, abducens

24. Which of the following cranial nerves is responsible for autonomic nervous system parasympathetic outflow to organs located in the thorax and abdomen?
- accessory n.
 - facial n.
 - glossopharyngeal n.
 - vagus n.
 - none of these is correct
25. What do Meissner's corpuscles, root hair plexuses, and hair cells of the crista ampullaris have in common?
- they are all exteroceptors
 - they are all interoceptors
 - they are all mechanoreceptors
 - they are all visceroreceptors
 - none of these – they have nothing in common
26. The two divisions of the autonomic nervous system (ANS) are
- pyramidal and extrapyramidal
 - sympathetic and parasympathetic
 - somatic and visceral
 - afferent and efferent
27. Sympathetic postganglionic neurons
- originate in the spinal cord
 - have long axons
 - have short axons
 - arise from terminal ganglia
 - arise from dorsal root ganglia
28. The celiac ganglion is a _____ ganglion composed of _____ neurons.
- paravertebral (trunk/chain); sympathetic
 - prevertebral (collateral); sympathetic
 - terminal; parasympathetic
 - terminal; sympathetic
 - paravertebral; parasympathetic
29. Imagine that your heart rate suddenly increases and you start to feel jumpy. Which of the following best describes the activities of the ANS?
- increased parasympathetic and sympathetic tone
 - decreased parasympathetic and sympathetic tone
 - increased parasympathetic and decreased sympathetic tone
 - decreased parasympathetic and increased sympathetic tone
30. Is it possible to increase sympathetic tone to the heart while decreasing sympathetic tone to the small intestine?
- Yes
 - No
31. Which of the following is another descriptive name for the parasympathetic division of the ANS?
- craniocervical division
 - craniosacral division
 - lumbodorsal division
 - lumbosacral division
 - thoracolumbar division

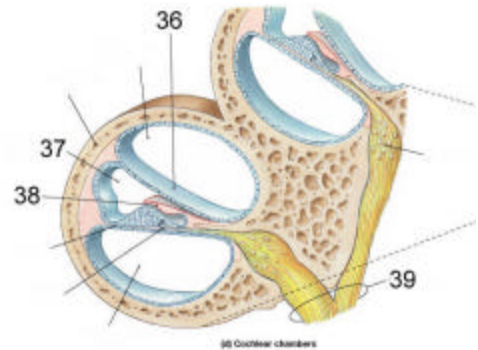
Match the following structures of the eye with their proper description:

- | | |
|------------------|---|
| 32. sclera | a. retinal area devoid of rods |
| 33. fovea | b. also known as the vascular tunic; middle coat of the eye |
| 34. choroid | c. red elevation at medial corner of the eye |
| 35. ciliary body | d. outermost layer of the eye |
| | e. inner ring of smooth muscle that encircles the lens |

Multiple Choice: Choose the one best answer:

36-39. Match the following structures of the cochlea in the picture below with their correct names.

- scala media
- scala tympani
- tectorial membrane
- vestibular membrane
- vestibulocochlear nerve



40. Vibration is transmitted from the middle ear (by the stapes) to the inner ear via the _____.

- helicotrema
- oval window
- pharyngotympanic tube
- round window
- none of these

41. The receptor organ(s) for static equilibrium that report linear acceleration and acceleration due to gravity are contained within the _____.

- organ of Corti
- utricle and saccule
- crista ampullaris
- cupula
- intrafusal body

42. Ear stones (otoliths) are

- a cause of deafness
- an important part of the vestibular system
- the bone within which the semicircular canals are embedded
- treated with lithotripsy

43. The central part of the retina that is filled with cones and is responsible for color vision is called the _____.

- choroid
- fovea
- optic disk
- ora serrata
- pupil

44. Red blood cells _____.

- are biconcave disks
- are multinucleate
- release histamine
- live much longer than leukocytes

45. Red blood cells are mostly filled with
- bilirubin
 - cytoskeleton
 - hemoglobin
 - oxygen
 - none of these is correct

Match the following descriptions of blood cell functions with the correct name at the right. Some names may be used more than once.

- | | |
|--|---------------|
| 46. destroys parasitic worms | a. basophil |
| 47. secretes histamine | b. eosinophil |
| 48. granulocyte that phagocytizes bacteria | c. lymphocyte |
| 49. the largest blood cell | d. monocyte |
| 50. the most abundant leukocyte | e. neutrophil |
51. T and B cells
52. What type of blood do veins of the pulmonary circuit carry?
- oxygenated
 - deoxygenated
 - neither oxygenated nor deoxygenated
 - both oxygenated and deoxygenated simultaneously
53. The deepest part of the pericardium is the
- fibrous pericardium
 - parietal serous
 - the pericardial cavity
 - visceral serous
54. The chordae tendinae
- open the AV valves.
 - prevent the AV valves from everting.
 - contract the papillary muscles.
 - prevent the semilunar valves from closing.
55. How many cusps does the pulmonary semilunar valve have?
- one
 - two
 - three
 - four
 - none – this valve doesn't have cusps
56. Deoxygenated blood is first received by the _____ from the _____.
- left atrium; pulmonary veins
 - left atrium; vena cavae
 - right atrium; pulmonary trunk
 - right atrium; vena cavae
 - none of these is correct
57. The large coronary vessel that returns blood to the right atrium is called the _____.
- accessory v.
 - coronary sinus
 - great cardiac v.
 - posterior interventricular a.

58. Where does blood go after it leaves the left ventricle?
- aorta
 - left atrium
 - pulmonary trunk
 - right atrium
 - none of these
59. Which of the following structures contains the fossa ovalis?
- left atrium
 - right atrium
 - left ventricle
 - right ventricle
 - aorta
60. The circumflex artery and right coronary artery are joined by a(n) _____.
- anastomosis
 - cardiac sinus
 - sinoatrial node
 - embolus
 - none of these – the two arteries don't join
61. The region known as the “pacemaker of the heart” is the _____.
- atrioventricular node
 - AV bundle
 - purkinje fibers
 - sinoatrial node
 - bulboatrial node
62. Trace the route of impulse conduction along the conduction pathway of the heart:
- atrioventricular node
 - atrioventricular bundle (bundle of His)
 - purkinje fibers of ventricles
 - sinoatrial node
 - interventricular septum
- 1,2,3,4,5
 - 2,1,4,5,3
 - 3,1,2,4,5
 - 4,1,2,5,3
 - 4,1,5,3,2
63. Which of the following tissues is mainly responsible for arterial vasoconstriction?
- elastic tissue
 - smooth muscle
 - dense irregular CT
 - adipose tissue
64. The most superficial layer or tunic of blood vessels is called the
- tunica externa (adventitia)
 - tunica epithelia
 - tunica intima
 - tunica media
65. Which of the following is a true structural difference between arteries and veins?
- arteries have a thicker tunica media
 - veins have valves while arteries do not
 - arteries are usually larger in diameter than veins
 - both a and b
 - a, b, and c are all true structural differences

66. What do precapillary sphincters do?
- control blood flow to capillaries
 - control diffusion of fluid out of veins
 - keep blood from flowing in the wrong direction
 - none of these is correct
67. Which side of the heart always contains oxygenated blood?
- left
 - right
 - neither – each alternates between oxy- and deoxy-blood
68. Which of the following arteries anastomose to form the basilar artery?
- internal carotid arteries
 - external carotid arteries
 - vertebral arteries
 - posterior cerebral arteries
69. Which artery might be bleeding if you sustained a sharp blow to the front of your upper arm?
- axillary a.
 - basilar a.
 - brachial a.
 - bronchomediastinal a.
 - common carotid a.
70. What is the major artery that connects the brachiocephalic trunk and the right axillary a.?
- subclavian a.
 - brachial a.
 - posterior humeral circumflex a.
 - subscapular a.
71. Which of the following gives rise to the femoral a. and the deep femoral a.?
- external iliac a.
 - internal iliac a.
 - lateral femoral circumflex a.
 - pudendal a.
 - sacral a.
72. The vein into which all of the dural sinuses drain is the _____ vein.
- external jugular v.
 - internal jugular v.
 - subdural v.
 - vertebral v.
73. Which of the following veins is not found in the upper arm?
- brachial v.
 - cephalic v.
 - basilic v.
 - median v.

74. The hepatic portal v. drains into the hepatic v. via the _____.
- a. inferior mesenteric v.
 - b. inferior phrenic v.
 - c. liver
 - d. splenic v.
 - e. superior mesenteric v.
75. Which of the following superficial veins is commonly used as a coronary bypass vessel?
- a. great saphenous v.
 - b. dorsal venous arch
 - c. peroneal v.
 - d. anterior varicose v.
 - e. anterior tibial v.