

ATI COMPREHENSIVE HESI A2 FOR ANATOMY AND PHYSIOLOGY | REAL EXAMS

1. Anatomic position

The body is erect, the feet are slightly apart, the head is held high, and the palms of the hands are facing forward

2. Which of the following is a structure found in the upper

respiratory? Pharynx

3. A person who has damage to their ulnar nerve will have decreases

sensation in Arm

4. Which bone does not articulate with any other

bone? Hyoid

5. Which of the following statements best describe endocrine

glands? They secrete chemicals into the blood

6. Diet is important because bone are storage

places for Calcium and phosphorous

7. Which organ is part of both the male reproductive system and the urinary

system? Urethra

8. Red blood cell production is known as which of the following?

A. Hematopoie

sis B.

Erythropoiesis

C. Phagocytosis

D. Thrombopoiesis

9. When an individual is under stress, hormones are released. Which of the following is not one of the locations in which hormones are released when under stress?

A. Parathyroid

B. Adrenal cortex

C. Posterior pituitary

D. Hypothalamus

10. The central nervous system is made up of all except which of the following?

A. Brain

B.

Heart

C. Retina

D. Spinal cord

11. The thyrotrophic-releasing growth hormone-releasing, and gonadotropin-releasing hormones are released by which of the following endocrine system glands?

A. Thymus

B. Pituitary gland

C. Pineal gland

D.

Hypothalamus

12. What is the most visible part of the

ear? A. Pinna

B. Organ of Corti

C. Cochlea

D. Ear canal

13. Which of the following is an organ of the respiratory system?

A. Brain

B. Larynx

C. Urethra

D. Pancreas

14. The motor cortex helps the brain by monitoring and controlling the body's movement. Where is the motor cortex located within the brain?

A. Top, middle portion of the parietal lobe.

B. Back of the head

C. Front portion of the parietal lobe.

D. Around the auditory cortex

15. The heart contains four chambers. Which of these four chambers is the largest and the strongest?

A. Left ventricle

B. Left atrium

C. Right ventricle

D. Right atrium

16. Which of the following organs is involved with the immune system?

A. Heart

B. Bronchi

C.

Appendix

D. Esophagus

17. Which of the following is not a principal organ of the nervous system?

A. Brian

B.

Thymus

C. Ganglia

D. Spinal cord

18. Where do the endocrine system and the nervous system meet?

A. At the pituitary gland and the pineal

gland B. At the hypothalamus and

pituitary gland

C. At the pineal gland

D. At the thyroid gland

19. The pancreas is an endocrine system gland mainly responsible for which of the following?

A. Proper bone development

B. Metabolism control

C. Maintaining healthy sugar levels

D. Distribution of stored fat.

20. The stomach lining membrane name?

The mucous membrane of the stomach contains simple columnar epithelium tissue with many exocrine cells.

21. Skin aids in maintaining the calcium and phosphate levels of the body by participating in the production of which of the following

vitamin d

22. All actions of the nervous system depend on the transmission of nerve impulses over which of the following?

neurons

23. Which hormone initiates the preparation of the endometrium of the uterus for pregnancy?

estrogen

24. Which female reproductive organ's produce oocytes, estrogen and

progesterone?

ovaries

25. The buttocks is on which surface the

body?

dorsal

26. the esophagus is located at which body

cavity thoracic

27. which is a hollow

organ gallbladder

28. which muscle is included in the quadriceps femoris

group vastus lateralis

29. what occur when the sympathetic nervous system is

stimulated? cardiac output

30. which hormone is produce by the posterior pituitary

gland oxytocin

31. which structure regulat the transport of substance in and out

of a cell the cellular membrane

32. a person who damages to their ulnar nerve will have decrease sesutior in

which area arm

33. when assessing a female client who describes herself as a vegetarian in the

nurse notes that she has an unusual skin color. The nurse should ask the client

if she has eaten large amount of:

carrot and squash

34. which structure produces B-lymphocytes

Red bone marrow

35. how many days is the avarage menstrul cycle

36. where in the human body are nutrients absorbed

small intestines

37. The central nervous system is made up of all except which of the following? heart

38. The motor cortex helps the brain by monitoring and controlling the body's movement. Where is the motor cortex located within the brain?

top, the middle portion of the parietal lobe.

39. The heart contains four chambers. Which of these four chambers is the largest and the strongest?

Left ventricle

appendix

40. Which of the following is not a principal organ of the nervous system? thymus

41. The pancreas is an endocrine system gland mainly responsible for which of the following?

maintain healthy blood sugar level

42. Tough elastic tissues found in the joints that connect bones to bones are called: ligament

43. What mineral is responsible for muscle contractions? calcium

44. Where can the urinary bladder and internal reproductive organs be found? pelvic cavity

45. Nerve tissue is composed of neurons and connective tissue cells that are referred to as which of the following?

neuroglia

46. Which tissue serves as the framework of the body by providing support and structure for the organs?

connective tissue

47. What are the glands of skin that produce a thin, watery secretion? eccrine glands

48. You have been given a sample of tissue that has open spaces partially filled by an assemblage of needle-like structures. What is this tissue?

spongy bone

49. Which mineral is responsible for regulating fluid in the body? sodium

50. Motor or _____ neurons transmit nerve impulses away from the

CNS. efferent

51. What are chemical messengers that control growth, differentiation, and the metabolism of specific target cells called?

hormones

52. Which blood vessel where exchanges take place between blood and the cells of the body? capillary

53. The stomach muscle churns and mixes food, turning the mass into a soupy

substance called what?

chyme

54. All the nutrients that enter the hepatic portal vein are routed where for decontamination? liver

55. In men, spermatozoa develop within the _ of each testis Seminiferous tubules

56. During pregnancy, what organ produces the hormones that maintain the endometrium and prepare the breasts for milk production?

placenta

57. Gland whose secretion is oily- a mixture of oily substances and cell fragments sebaceous

58. Sweat gland whose secretion is primarily water and salts plus contains protein and fatty substances

apocrine

59. Smooth muscle structure in the skin arrector pili

60. What type of joint is the

elbow hinge

61. What type of joint is the hip and

shoulder ball and socket

62. What are the two most abundant minerals stored in bones

extracellular matrix calcium and phosphate

63. The most abundant glial cells found in the CNS that anchor neurons to

capillaries and help control the environment around neurons

astrocytes

64. What does the adrenal medulla

secrete? Epinephrine and

norepinephrine

65. Which skin cancer is the most dangerous?

malignant melanoma

-because it metastasizes (spreads)

-Cancer of the melanocytes

66. Which skin cancer is moderately

dangerous? squamous cell carcinoma

-arises from keratinocytes of stratum spinosum

67. Which skin cancer is least

dangerous? basal cell carcinoma

-doesn't spread

68. What is the only artery in the body to carry oxygen-poor

blood? pulmonary artery

69. Chocolate cysts of the ovaries are attributed to _____

endometriosis

70. tendons

connect muscle to

bone

71. Where is interstitial fluid found in the

body? in the tissues around cells

72. Which lobe of the brain is associated with judgement, planning, impulse control, and social behavior?

frontal

73. What does lipase do?

It breaks down fats into fatty acids and glycerol.

74. In what area of the body would you expect to find an especially thick stratum corneum? Heel of the foot

75. What two things must be present for a muscle cell to contract? Calcium & adenosine triphosphate (ATP)

76. The esophagus is located at which body cavity

a) ventral

b) abdomen

c)

thoracic

77. What is the response of a cell in the collecting tubules in the nephrons when antidiuretic hormone (ADH) is secreted?

Water is reabsorbed from the urinary filtration?

78. What is the function of ADH hormone

Regulate water balance in the body by controlling the amount of water the kidneys reabsorb

79. Which muscle is included in the quadriceps femoris group

a) trapezius

b) vastuslateralis

c) gastrocnemius

d) rectus abdominus

80. the calcaneus is located in which part of the
bodythe leg

81. Where is the tympanic membrane

located? external auditorium canal and
tympanic cavity

82. Fats are broken down in the small intestine using which enzyme(s)?

Fats also known as lipids are broken down using lipase produced by the
pancreas and bile produced by the liver but transferred to the small intestine
through the bile duct.

83. What is the only artery to carry oxygen-poor

blood? Pulmonic Artery

84. What do ligaments

connect? Bone to Bone

85. Is epithelial tissue vascular or

avascular? Avascular

86. Which of the following describes the primary function of the respiratory system?

A) to create sound and speech

B) to take oxygen into the body while removing carbon dioxide

C) to transport nutrients to the cells and tissue of the body

D) to act as a barrier between the body's organs and outside influences

87. Which of the following is the first step of the scientific method?

A) construct a hypothesis

B) make observations

C) analyze data

D) form a question

88. The process of organisms with an advantageous trait surviving more often and producing more offspring than organisms without the advantageous trait describes which of the following basic mechanisms?

A) gene flow

B) genetic drift

C) mutation

D) natural selection

89. Which of the following is the group of basophils that produces follicle-

stimulating hormone (FSH) and luteinizing hormone?

A) gonadotrophs

B) thyrotroph

C) chromophil

D) pituicytes

90. Which of the following are considered the basic units of the female

reproductive system, each containing a single immature egg cell that is released

during ovulation?

A) oocytes

B) follicles

C) ovaries

D) fundus

91. Which of the following describes the muscular organ that processes food

material into increasingly smaller pieces, mixes it with saliva to create a bolus,

and creates a barrier to transport food into the esophagus?

A) pharynx

- B) tongue
- C) diaphragm
- D) stomach

92. Which of the following chambers of the heart receives blood returning from the lungs during pulmonary circulation?

- A) left atrium
- B) right atrium
- C) left ventricle
- D) right ventricle

93. Which of the following is the lobe in the cerebral cortex primarily responsible for processing and integrating sensory information received from the rest of the body?

- A) frontal lobe
- B) occipital lobe
- C) parietal lobe

94. Which of the following is an example of adaptive, or specific, immunity?

A) inflammation

B) fever

C) humoral

D) phagocytosis

95. Which of the following describes a situation in which research results are consistent with every subsequent experiment, but the test used in the experiment does not measure what it claims to measure?

A) reliable, but not valid

B) valid, but not reliable

C) neither reliable or valid

D) both reliable and valid

96. Which of the following Mendellian laws describes how pairs of alleles within genes separate and recombine separately from other genes?

A) law of segregation

B) law of dominance

C) law of independent assortment

D) law of predictive traits

97. Which of the following describes how atomic radius varies across the periodic table?

A) atomic radius increases from top to bottom and left to right on the periodic table

B) atomic radius increases from top to bottom and right to left on the periodic table

C) atomic radius increases from top to bottom and toward the halogens on the periodictable

D) atomic radius increases from top to bottom and toward the noble gases on the periodictable

98. Which of the following is NOT a tissue layer found in skeletal bones?

A) periosteum

B) bone marrow

C) enamel

D) cancellous bone

99. Which of the following sets of valves is primarily responsible for preventing blood flow from major blood vessels to the heart?

A) atrioventricular valves

B) semilunar valves

C) tricuspid valves

D) bicuspid valves

100. Bone is composed primarily of which of the following inorganic materials?

A) calcium

B) magnesium

C) collagen

D) potassium

101. Which of the following is the primary physical barrier the body uses to

prevent infection

A) mucus membranes

B) stomach acid

C) skin

D) urine

102. Which of the following is the connective area where nerve impulses send

neurotransmitters across a synapse to a muscle cell to stimulate muscle

contraction?

A) sarcomere

B) tendon

C) nicotinic receptors

D) neuromuscular junctions