Exam 3 Practice.

Covers Animal evolution and structure/function - mainly homeostasis as it is related to the endocrine, nervous and cardiovascular systems.

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) What is the name given to the process by which a larva develops into an adult?
   A) morphogenesis
   B) metamorphosis
   C) organogenesis
   D) gastrulation
   E) neurulation

2) The common ancestor of all animals is likely to have been a(n) ______.
   A) colonial, flagellated protist
   B) colonial, ciliated protist
   C) colonial, flagellated bacterium
   D) sponge
   E) virus

3) Which of these exhibits radial symmetry?
   A) butterfly
   B) automobile
   C) spoon
   D) Ferris wheel
   E) shoe box

4) A true coelom is ______.
   A. completely lined with tissue derived from mesoderm
   B. formed when a zygote develops into a blastula
   C. formed when a larva undergoes metamorphosis
   D. completely lined with tissue derived from ectoderm
   E. completely lined with tissue derived from endoderm

5) How do sponges differ from all other animals?
   A. Sponges are autotrophs.
   B. Sponges have a true coelom.
   C. Sponges lack true tissues.
   D. Sponges lack a true body cavity.
E. Sponges exhibit radial symmetry.

6) There are more species of ______ than of any other type of animal.
   A. nematodes
   B. molluscs
   C. chordates
   D. annelids
   E. arthropods

7) ______ are the most diverse group of arthropods.
   A. Centipedes
   B. Crustaceans
   C. Arachnids
   D. Insects
   E. Millipedes

8) Among vertebrates, the unique feature of lampreys and hagfish is the ______.
   A. absence of a backbone
   B. absence of jaw
   C. presence of a cartilaginous skeleton
   D. absence of a post-anal tail
   E. presence of a cranium

9) What does the term *tetrapod* mean?
   A. having four feet
   B. descended from fish
   C. egg-laying
   D. living a double life
   E. apelike

10) Almost every element of bird anatomy is modified for what?
    A. enhancement of flight
    B. singing unique songs
    C. being brightly colored
    D. eating seeds
    E. laying eggs
11) Annelids are most closely related to _____.
12) Insects, such as the grasshopper shown below, have _____

A. eyes, but no mouth  
B. a two-part body: head and abdomen  
C. a three-part body: head, thorax, and abdomen  
D. no wings  
E. eight legs
13) What can be said about the population of bald eagles in the lower 48 United States?
   A. It has been increasing since 1986.
   B. It has been steady since 1986.
   C. It has been decreasing since 1986.
   D. No trend can be seen.
   E. More information is needed to answer the question.
14) According to this evolutionary tree, approximately how many years ago did humans and orangutans share a common ancestor?

A. 1 million years ago  
B. 7 million years ago  
C. 12 million years ago  
D. 20 million years ago  
E. 56 million years ago

15. Structure in the living world is organized at hierarchical levels. Which of the following choices lists several of these, from least inclusive to most inclusive?
   A. cell, organ system, tissue, organ, organism  
   B. cell, organ, organ system, tissue, organism  
   C. tissue, cell, organ system, organ, organism  
   D. cell, tissue, organ, organ system, organism  
   E. cell, organism, organ, organ system, tissue
16. Which is the most abundant kind of tissue in an animal such as a zebra?
   A. muscle
   B. epithelial
   C. nervous
   D. connective
   E. blood

17. Which of the following animals is an ectotherm?
   A. field mouse
   B. human
   C. spiny lobster
   D. elephant
   E. parrot
18. The following figure illustrates _____.

A. diastolic blood pressure
B. an open circulatory system
C. systolic blood pressure
D. the systemic circuit
E. the pulmonary circuit

19. Which of the following is an aspect of asexual reproduction that is sometimes disadvantageous?
A. It allows a population to expand quickly to exploit available resources.
B. It allows animals that do not move around to produce offspring without finding mates.
C. It allows an animal to produce many offspring quickly.
D. It saves the time and energy of gamete production.
E. It produces genetically uniform populations.

20. Digestion is the _____.
   A. absorption of nutrients
   B. conversion of glucose to ATP
   C. breakdown of food into small nutrient molecules that the body can absorb
   D. churning of food in the stomach and intestine
   E. conversion of glycogen to glucose

21. Digestion begins in the _____.
   A. pharynx
   B. esophagus
   C. stomach
   D. oral cavity
   E. tongue

22. Absorption of water is one major function of which of the following structures?
   A. colon
   B. appendix
   C. esophagus
   D. rectum
   E. cecum

23. Most human need about _____ kcal per day.
   A. 500-700
   B. 1,300-1,800
   C. 2,500-3,000
   D. 10,000-20,000
   E. 20,000-30,000

24. Vitamins are _____.
   A. only required by children
   B. organic molecules that are required in the diet in very small amounts
   C. nutrients that we can synthesize from simpler molecules
   D. required to synthesize most amino acids
25. Which of the following carry incoming messages toward the cell body of a neuron?
   A. axons
   B. myosin filaments
   C. supporting cells
   D. actin filaments
   E. dendrites

26. Which of the following is(are) part of the central nervous system? 23) A) nerves
   B) ganglia
   C) brain and spinal cord
   D) brain only
   E) spinal cord only

27. Arthritis is a common result of aging, affecting a person's ability to _____.
   A) move their joints
   B) produce red blood cells
   C) catch their breath after exercise
   D) heal broken bones
   E) think clearly

28. According to the sliding-filament model of muscle contraction, a sarcomere contracts when its _____.
   A. thin filaments slide across the ends of the sarcomere
   B. thick filaments slide toward each other across its thin filaments
   C. thick filaments shorten, pulling the opposed sets of thin filaments past each other
   D. thin filaments slide toward each other across its thick filaments
   E. thick filaments slide across the ends of the sarcomere

29. Reproductive systems with external fertilization are most common in _____.
   A. populations with many more males than females
   B. animals that are widely dispersed
   C. terrestrial animals
   D. aquatic animals
   E. populations with many more females than males
29) The liver, pancreas, and lining of the digestive tract come from _____.
   A. endoderm  
   B. ectoderm  
   C. neural crest cells  
   D. mesoderm  
   E. endoderm

30) What is gestation?
   A. ovulation  
   B. conception  
   C. pregnancy  
   D. fertilization  
   E. development

31) Bill suffers from a low sperm count. After meeting with his physician, he tells his wife that there might be a simple solution. Bill's physician suggests that he might raise his sperm count by_____.
   A. drinking more orange juice  
   B. having sex more often  
   C. drinking a few alcoholic beverages each day  
   D. wearing boxer shorts  
   E. riding a bicycle

32) The figure below shows that _____.
   A. a hemoglobin molecule can bind up to four molecules of oxygen  
   B. hemoglobin can bind to either oxygen or carbon dioxide  
   C. each iron atom can bind four oxygen molecules  
   D. capillaries have a structure that resembles a net
E. a red blood cell contains four hemoglobin molecules

33. All veins carry ______.
   A. oxygen-rich blood
   B. interstitial fluid
   C. blood toward the heart
   D. oxygen-poor blood
   E. blood away from the heart

34. Why is blood pressure higher during systole than during diastole? 41)
   A. The contraction of the heart during diastole decreases the blood pressure against arterial walls.
   B. The contraction of the heart during systole increases the blood pressure against the valves separating the atria from the ventricles.
   C. More blood flows into the heart during systole than during diastole.
   D. The relaxation of the heart during systole increases the blood pressure against arterial walls.
   E. The contraction of the heart during systole increases the blood pressure against arterial walls.

35. Blood pressure that is consistently ______ or higher would indicate that you have hypertension.
   A. 130/80
   B. 110/85
   C. 140/90
   D. 100/75
   E. 120/80

36. Which of these blood components are responsible for initiating the clotting process?
   A. red blood cells
   B. platelets
   C. leukocytes
   D. erythrocytes
   E. white blood cells

37. You increase your risk of cardiovascular disease by reducing your consumption of ______.
   A. red meats
   B. tobacco products
C. products containing trans fats  
D. products that are high in cholesterol  
E. fruits and vegetables

Use the following information to answer the following question(s).

The dune-burrowing spider *Seothyra* sp. lives in the Namib desert on the southwestern coast of Africa. These spiders build silk-lined burrows with a sticky silk mat at the entrance to trap insect prey. While foraging during the day, the spider remains concealed in its burrow and shielded from direct sunlight when prey are not present. During the day, environmental temperatures vary from 17 to 73°C (63-164°F). If a spider is prevented from retreating into its burrow, it shows signs of thermal stress at 49°C, whereas unrestrained spiders continue to forage at temperatures above 65°C. In addition, spiders respond more quickly to prey stimuli during the hottest times of the day and capture prey in significantly less time when temperatures are above 49°C. The captured arthropods (prey) tend to succumb more quickly to hot surface temperatures; they are more lethargic and struggle less when captured at the high temperature ranges.

38. When foraging spiders are too hot, they retreat into the cooler confines of their burrows. When temperatures are cooler, they move closer to the surface of the burrow to increase their body temperatures. What type of feedback system does this indicate?
   A. positive and negative feedback  
   B. negative feedback  
   C. neuronal feedback  
   D. positive feedback  
   E. hormonal feedback  

39. When spiders show signs of thermal stress, this is an indication that they are unable to ______.
   A. osmoregulate  
   B. move  
   C. reabsorb valuable ions  
   D. excrete wastes  
   E. thermoregulate  

40. Which of the following is a physiological response that takes place in many animals when they get too hot?
   A. constriction of blood vessels in the skin
B. slowing of the heart rate
C. contraction of muscles
D. increased blood flow to the skin
E. retention of water

41. Through which of these structures does urine leave the bladder?
   A. renal artery
   B. urethra
   C. ureter
   D. nephron
   E. ADH

42. Homeostasis ______.
   A. is the maintenance of a constant internal state
   B. is the maintenance of a relatively stable internal environment
   C. only comes into play when you are ill
   D. is the way the internal environment influences the external environment
   E. is a pathological condition

43. The main function of muscle tissue is ______.
   A. sensation
   B. support
   C. covering surfaces
   D. absorption
   E. contraction

44. Hormones regulate ______.
   A) growth
   B) reproduction
   C) maturation
   D) metabolism
   E) all of the above
   Answer: E
   Skill: Application/Analysis

45. Which of the following is part of the brain?
   A) thymus
   B) hypothalamus
   C) adrenal cortex
   D) thyroid
E) parathyroid
Answer: B
Skill: Knowledge/Comprehension

46. Which of the following best describes the relationship of insulin to glucagon?
A) They work together to prepare the body to deal with stress.
B) Insulin stimulates the pancreas to secrete glucagon.
C) High levels of insulin inhibit pancreatic secretion of glucagon.
D) They are antagonistic hormones.
E) Insulin is a steroid hormone; glucagon is a protein hormone.
Answer: D
Skill: Knowledge/Comprehension

47. Which structure exerts primary control over the concentration of sugar in the blood?
A) liver
B) pituitary
C) pineal
D) pancreas
E) parathyroid
Answer: D
Skill: Knowledge/Comprehension

48. When the concentration of glucose in the blood rises following the digestion of a meal, what is the hormonal response?
A) Both glucagon and insulin are released.
B) Glucagon is released, but not insulin.
C) Insulin is released, but not glucagon.
D) Neither glucagon nor insulin is released.
E) The total amount of insulin in the blood decreases.
Answer: C
Skill: Knowledge/Comprehension

49. Which of the following hormones causes a rise in the concentration of sugar in the blood?
A) insulin
B) glucagon
C) melatonin
D) calcitonin
E) oxytocin
Answer: B
Skill: Knowledge/Comprehension
50. What is the metabolic abnormality that underlies the characteristic symptoms of diabetes mellitus, such as frequent urination?
A) a failure of the kidney tubules to reabsorb enough glucose from the urine
B) a failure of the gastrointestinal epithelium to absorb enough glucose from food
C) an inability of the body's cells to switch from glucose metabolism to fat metabolism between meals
D) an inability of the body's cells to retain glucose they have absorbed from the blood
E) an inability of the body's cells to absorb enough glucose from the blood
Answer: E
Skill: Application/Analysis

51. Which of the following is almost always associated with being overweight and underactive?
A) type 1 diabetes
B) type 2 diabetes
C) type 3 diabetes
D) hyperthermia
E) hypoglycemia
Answer: B
Skill: Knowledge/Comprehension

52. Which of the following glands is located nearest the kidneys?
A) ovaries
B) pancreas
C) pineal glands
D) parathyroid glands
E) adrenal glands
Answer: E
Skill: Knowledge/Comprehension

53. Which of the following glands secretes hormones that enable the body to respond to stress?
A) pancreas
B) adrenal
C) pineal
D) salivary
E) parathyroid
Answer: B
Skill: Knowledge/Comprehension

54. Epinephrine ______.
A) decreases metabolic rate
B) decreases heart rate
C) decreases blood pressure
D) increases absorption of glucose by the digestive tract
55. Which of the following is(are) mostly involved in a long-lasting response to stress?
A) mineralocorticoids
B) glucocorticoids
C) androgens
D) melatonin
E) oxytocin
Answer: B
Skill: Knowledge/Comprehension

56. Which of the following hormones can make a person susceptible to infection when administered for too long as a drug?
A) glucagon
B) growth hormone
C) glucocorticoids
D) antidiuretic hormone
E) androgens
Answer: C
Skill: Knowledge/Comprehension
57. Examine the figure below. If blood glucose levels decline, ______.

A) the pancreas releases glucagon, which causes glucose to be released into the blood
B) the pancreas releases insulin, which causes glucose to be released into the blood
C) body cells take up more glucose
D) liver cells convert glucose to glycogen
E) you must have just eaten a carbohydrate-rich meal

Answer:  A
Skill: Application/Analysis

58. Structure in the living world is organized at hierarchical levels. Which of the following choices lists several of these, from least inclusive to most inclusive?
A) cell, organ, organ system, tissue, organism
B) cell, tissue, organ, organ system, organism
59. The connection between structure and _____ is a basic concept of biology.
A) species
B) adaptation
C) function
D) sex
E) strength
Answer: C
Skill: Knowledge/Comprehension

60. A physiologist is a biologist who studies the _____.
A) structure of living things
B) structure of body parts
C) evolution of animals
D) physics of living things
E) function of body parts
Answer: E
Skill: Knowledge/Comprehension

61. Which of the following is a major category of animal tissue?
A) epithelial
B) plasma
C) bone
D) cardiac
E) skin
Answer: A
Skill: Knowledge/Comprehension

62. The main function of muscle tissue is _____.
A) sensation
B) support
C) contraction
D) covering surfaces
E) absorption
Answer: C
Skill: Knowledge/Comprehension

63. Which type of tissue forms a communication and coordination system within the body?
A) nervous
B) blood
C) epithelial
D) connective
E) muscle
Answer: A
Skill: Knowledge/Comprehension

64. Which of the following is NOT a true statement about organs?
A) An organ represents a higher level of structure than the tissues composing it.
B) An organ consists of several tissues.
C) An organ can only carry out the functions of its component tissues.
D) An organ consists of many cells.
E) Organs play a role in homeostasis.
Answer: C
Skill: Knowledge/Comprehension

65. The fact that every organism continuously exchanges chemicals and energy with its surroundings indicates that organisms ______.
A) are open systems
B) are closed systems
C) maintain homeostasis
D) thermoregulate
E) osmoregulate
Answer: A
Skill: Knowledge/Comprehension

66. Imagine an invertebrate that lives in an estuary where salinity varies cyclically with the tides. If this animal practices homeostasis with respect to the salt concentration of its body fluids, its salt concentration will show ______.
A) no variations
B) slight, continuous fluctuations
C) slight variations, but only when the external salinity is changing rapidly
D) a cyclic variation similar to that of the surrounding water but more intense
E) a cyclic variation identical to that of the surrounding water
Answer: B
Skill: Knowledge/Comprehension
67. Homeostasis ______.
A) is the maintenance of a constant internal state
B) only comes into play when you are ill
C) is a pathological condition
D) is the maintenance of a relatively stable internal environment
E) is the way the internal environment influences the external environment
Answer: D

68. Which of the following is most likely to be responsible if, when your blood sugar level rose, the level went back down?
A) diabetes insipidus
B) the use of the sugar for energy by your cells
C) a homeostatic mechanism based on negative feedback
D) type 2 diabetes
E) a homeostatic mechanism based on positive feedback
Answer: C
Skill: Knowledge/Comprehension

69. Most homeostatic mechanisms depend on ______.
A) positive feedback
B) positive and negative feedback
C) negative feedback
D) predictable environmental conditions
E) predictable internal conditions
Answer: C
Skill: Knowledge/Comprehension
70. Which of the following animals is an ectotherm?
A) human
B) parrot
C) spiny lobster
D) elephant
E) field mouse
Answer: C
Skill: Knowledge/Comprehension

71. Which of the following animals is generating body heat to warm itself?
A) a beetle that absorbs solar radiation
B) a moth that shivers its wings before flight
C) a lizard that lies on a warm rock
D) a turtle that moves to a warm, shallow part of a pond
E) an insect that positions its body for maximal exposure to sunlight
Answer: B
Skill: Knowledge/Comprehension

72. When body temperature is too low, which of the following occurs?
A) The thermostatic control center of the brain is deactivated.
B) Blood vessels in the skin constrict.
C) Muscles relax.
D) Sweat glands are activated.
E) Blood vessels at the body surface dilate and fill with warm blood.
Answer: B
Skill: Knowledge/Comprehension

73. Which of the following is a physiological response that takes place in many animals when they get too hot?
A) slowing of the heart rate
B) constriction of blood vessels in the skin
C) contraction of muscles
D) increased blood flow to the skin
E) retention of water
Answer: D
Skill: Knowledge/Comprehension

74. Which of the following is a source of water loss in humans?
A) urination
B) defecation
C) perspiration
D) breathing
E) all of the above
75. Fur, feathers, and blubber function in ______.
A) thermoregulation
B) water conservation
C) osmoregulation
D) dialysis
E) positive feedback
Answer: A

76. The structures shown below are part of the ______.

A) circulatory system
B) skeletal system
C) digestive system
D) respiratory system
E) muscular system
Answer: D
Skill: Knowledge/Comprehension
77. The structures shown below are part of the _____.

A) urinary system
B) reproductive system
C) endocrine system
D) nervous system
E) lymphatic system

Answer: A
78. The figure below shows that ______.

A) homeostatic mechanisms allow cats to sense their external environments
B) homeostatic mechanisms allow cats to use their internal conditions to affect their external environments
C) cats experience no variations in their internal conditions
D) homeostatic mechanisms allow cats to maintain relatively constant internal conditions even when the external environment changes
E) cats are the only animals with homeostatic mechanisms

Answer: D
Skill: Knowledge/Comprehension

79. Examine the figure below, which shows negative feedback in a thermostat. If the room becomes too warm, ______.
A) the set point increases  
B) the heater is turned on  
C) the set point decreases  
D) heat is produced  
E) the heater is turned off  
Answer: E  
Skill: Knowledge/Comprehension  

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During the day, environmental temperatures vary from 17 to 73°C (63-164°F). If a spider is prevented from retreating into its burrow, it shows signs of thermal stress at 49°C, whereas
unrestrained spiders continue to forage at temperatures above 65°C. In addition, spiders respond more quickly to prey stimuli during the hottest times of the day and capture prey in significantly less time when temperatures are above 49°C. The captured arthropods (prey) tend to succumb more quickly to hot surface temperatures; they are more lethargic and struggle less when captured at the high temperature ranges.

80. Based on the information in the paragraphs, spiders are likely ______.
A) ectotherms
B) endotherms
C) feverish
D) not well adapted
E) sometimes ectotherms and sometimes endotherms
Answer: A
Skill: Knowledge/Comprehension

81. When foraging spiders are too hot, they retreat into the cooler confines of their burrows. When temperatures are cooler, they move closer to the surface of the burrow to increase their body temperatures. What type of feedback system does this indicate?
A) hormonal feedback
B) neuronal feedback
C) positive feedback
D) negative feedback
E) positive and negative feedback
Answer: D
Skill: Knowledge/Comprehension

82. When spiders show signs of thermal stress, this is an indication that they are unable to ______.
A) move
B) reabsorb valuable ions
C) excrete wastes
D) osmoregulate
E) thermoregulate
Answer: E
Skill: Application/Analysis

83. In humans, oxygen is delivered to the cells of the body by the ______ system.
A) circulatory
B) digestive
C) reproductive
D) lymphatic
E) endocrine
84. Which one of the following is a characteristic of open circulatory systems but not closed circulatory systems?
A) a heart
B) a vascular system
C) blood
D) open-ended blood vessels
E) All of the above are found in both open and closed circulatory systems.
Answer: D
Skill: Knowledge/Comprehension

85. In animals with a closed circulatory system, gas exchange occurs across the thin walls of _______.
A) veins
B) arteries
C) arterioles
D) capillaries
E) venules
Answer: D
Skill: Knowledge/Comprehension

86. All veins carry _______.
A) interstitial fluid
B) blood away from the heart
C) oxygen-rich blood
D) oxygen-poor blood
E) blood toward the heart
Answer: E
Skill: Knowledge/Comprehension

87. Which of these carry(ies) oxygen-poor blood?
A) pulmonary arteries
B) pulmonary veins
C) aorta
D) left atrium
E) left ventricle
Answer: A
88. A heart murmur occurs when there is a defect in _____.
A) a heart valve
B) the aorta
C) the SA node
D) the AV node
E) the timing of the cardiac cycle
Answer: A

89. Why is blood pressure higher during systole than during diastole?
A) The contraction of the heart during systole increases the blood pressure against arterial walls.
B) The relaxation of the heart during systole increases the blood pressure against arterial walls.
C) The contraction of the heart during diastole decreases the blood pressure against arterial walls.
D) More blood flows into the heart during systole than during diastole.
E) The contraction of the heart during systole increases the blood pressure against the valves separating the atria from the ventricles.
Answer: A

90. The basic rhythm of the heartbeat is set by the ______
A) AV node
B) atria
C) ventricles
D) SA node
E) "fight-or-flight" hormone
Answer: D
91. If your blood pressure were 120/70, it would mean that ______.
A) your blood pressure during systole is 120 and your blood pressure during diastole is 70
B) you have high blood pressure
C) your blood pressure during diastole is 120 and your blood pressure during systole is 70
D) when your ventricles relax, the pressure against your arterial walls is 120 and when your ventricles contract, the pressure against your arterial walls is 70
E) your blood pressure during systole is 120 and your heart rate is 70
Answer: A
Skill: Knowledge/Comprehension

92. Blood pressure that is consistently ______ or higher would indicate that you have hypertension.
A) 120/80
B) 140/90
C) 130/80
D) 110/85
E) 100/75
Answer: B
Skill: Knowledge/Comprehension

93. When you examine fluid that you have drawn from a blood vessel, you find that it is relatively high in carbon dioxide and waste products. Assuming that the fluid comes from a healthy individual, you conclude that the blood vessel from which you have drawn blood could have been ______.
A) a venule
B) an artery
C) an arteriole
D) the aorta
E) either an artery or an arteriole
Answer: A
Skill: Application/Analysis

94. Blood pressure is lowest in ______.
A) veins
B) arteries
C) capillaries
D) arterioles
E) venules
Answer: A
Skill: Knowledge/Comprehension
95. You increase your risk of cardiovascular disease by reducing your consumption of ______.
A) fruits and vegetables  
B) red meats  
C) products containing trans fats  
D) products that are high in cholesterol  
E) tobacco products  
Answer: A  
Skill: Knowledge/Comprehension

96. Earthworms use ______ as their respiratory surface.
A) lungs  
B) gills  
C) their skin  
D) tracheae  
E) all of the above  
Answer: C  
Skill: Knowledge/Comprehension

97. What structure do lobster use for gas exchange?
A) gills  
B) lungs  
C) skin  
D) tracheae  
E) shell  
Answer: A  
Skill: Knowledge/Comprehension

98. Insects breathe using ______.
A) gills  
B) lungs  
C) tracheae  
D) their entire outer skin  
E) book lungs  
Answer: C  
Skill: Knowledge/Comprehension

99. Animals need O₂ because it ______.
A) plays a role in obtaining energy from food  
B) counterbalances the CO₂ in the atmosphere  

C) helps animals synthesize proteins
D) is necessary to make CO2
E) is needed to deliver hemoglobin to the cells of an animal's body
Answer: A
Skill: Knowledge/Comprehension

Blood flowing away from the heart is under tremendous pressure, able to travel to just about any portion of the body. However, blood pressure drops considerably as it moves away from the heart. When blood finally reaches capillaries, the blood pressure drops to nearly zero. Therefore, when a person is standing, blood returning from the feet is not moved back towards the heart by heart contractions.

100. Blood is propelled back to the heart by ______.
A) rhythmic contractions of muscles in the walls of veins and the action of one-way valves
B) skeletal muscle contractions around veins and the action of one-way valves
C) contractions of the walls of capillaries
D) the negative pressure of the heart pulling blood into the empty chambers
E) the natural flow of blood into ever larger blood vessels leading to the heart
Answer: B
Skill: Knowledge/Comprehension

101. Because of the changes in blood pressure through the circulatory system, the best way to feel a pulse is by pressing a finger against ______.
A) a vein
B) a venule
C) a capillary
D) an artery
E) either an artery or a vein
Answer: D
Skill: Knowledge/Comprehension

102. A characteristic of arthropods that has allowed for their great success is the presence of ______.
A) bilateral symmetry
B) an endoskeleton
C) a coelom
D) a brain
E) specialized segments
Answer: E
Skill: Knowledge/Comprehension
103. Unique features of vertebrates include the presence of a(n) ______.
   A) endoskeleton  
   B) notochord  
   C) true coelom  
   D) skull and backbone  
   E) pharyngeal slit  
   Answer:  D

104. Which of the following is a characteristic of all chordates?
   A) They all have vertebral columns.  
   B) They all exhibit radial symmetry.  
   C) They all have a notochord sometime during the life cycle.  
   D) They all have an exoskeleton sometime during the life cycle.  
   E) They all have a pseudocoelom.  
   Answer:  C  
   Skill: Knowledge/Comprehension

105. Which group of fishes includes a lineage that migrated out of fresh water and adapted to life on land?
   A) starfishes  
   B) ray-finned fishes  
   C) jawless fishes  
   D) lobe-finned fishes  
   E) cartilaginous fishes  
   Answer:  D  
   Skill: Knowledge/Comprehension

106. Characteristics shared by both snakes and birds include ______.
   A) being ectothermic  
   B) the presence of only a single ovary in females  
   C) the amniotic egg  
   D) being endothermic  
   E) feathers  
   Answer:  C  
   Skill: Knowledge/Comprehension

107. Features unique to mammals include ______.
   A) the presence of hair  
   B) extended parental care of the young  
   C) being endotherms  
   D) the absence of flying forms  
   E) having no egg-laying members  
   Answer:  A
108. _____ are the mammalian group that lay eggs.
A) Eutherians
B) Tunicates
C) Monotremes
D) Primates
E) Marsupials
Answer: C

109. Which anthropoids are most closely related to humans?
A) Old World monkeys
B) orangutans
C) chimpanzees
D) gorillas
E) gibbons
Answer: C

110. Which of these human characteristics evolved first?
A) enlarged brain
B) upright posture
C) language
D) loss of body hair
E) development of culture
Answer: B

111. Where did humans first appear?
A) South America
B) Africa
C) Asia
D) Europe
E) Australia
Answer: B
112. **Diagram**: Label all parts indicated by lines. 1 pt each for a total of 18 points. Please write CLEARLY so I can give you all the credit you deserve. 😊