

Introductory Biology II, Exam I, Spring 2019

Instructions: There are 50 questions. Write down the *best* answer for each one. Please make sure that you fill out your scantron correctly. In case of discrepancy, the answer on the scantron will be considered your answer. When you're finished, please hand in the scantron. You may keep the exam. **Good luck!**

- a ___ 1) How many layers does simple squamous epithelial tissue have?
a) one b) two c) three d) four e) five
- e ___ 2) A tissue type that covers surfaces:
a) muscle b) connective c) nervous d) adipose e) epithelial
- a ___ 3) Smooth or voluntary describes what kind of tissue:
a) muscle b) connective c) nervous d) adipose e) epithelial
- a ___ 4) Intercalated disks are found in what kind of tissue:
a) muscle b) connective c) nervous d) adipose e) epithelial
- c ___ 5) Signals travel around the body using what kind of tissue:
a) muscle b) connective c) nervous d) adipose e) epithelial
- b ___ 6) Blood is what kind of tissue:
a) muscle b) connective c) nervous d) adipose e) epithelial
- a ___ 7) True or false: all four tissue types can be found in the organs of the body:
a) True b) False
- a ___ 8) A lizard sitting on a hot rock is using what kind of mechanism to exchange heat?
a) conduction b) convection c) radiation d) evaporation
- b ___ 9) A lizard is:
a) endothermic b) ectothermic
- b ___ 10) Humans are:
a) endothermic and ectothermic b) endothermic and homeothermic
c) endothermic and poikilothermic d) ectothermic and homeothermic e) ectothermic and poikilothermic
- b ___ 11) In response to cold, blood is moved:
a) to the skin b) away from the skin
- b ___ 12) Humans are:
a) fluid feeders b) bulk feeders c) substrate feeders d) suspension feeders
- c ___ 13) Humans, bears and pigs are examples of (pick *best* answer):
a) carnivores b) herbivores c) omnivores
- b ___ 14) Bears are:
a) autotrophs b) heterotrophs
- c ___ 15) In the short term, excess energy is stored in the liver as:
a) fat b) protein c) glycogen d) amylase e) bile
- c ___ 16) Scurvy is caused by a deficiency of:
a) Vitamin A b) Vitamin B c) Vitamin C d) Vitamin D e) Vitamin E
- a ___ 17) True or false: humans can make about half of the amino acids we need:
a) True b) False

- d__ 18) To break down starch, we need to use:
 a) gastric juice b) pepsin c) pepsinogen d) amylase e) bile
- b__ 19) When you swallow, the trachea is covered by the:
 a) esophagus b) epiglottis c) nasal passages d) choanae e) tongue
- e__ 20) Which of the following is not released by the pancreas:
 a) lipase b) amylase c) nucleases d) buffer e) bile
- c__ 21) Nutrients (except fat) that are absorbed are taken first to the:
 a) kidneys b) gall bladder c) liver d) pyloric sphincter e) rectum
- e__ 22) Villi are found in the:
 a) kidneys b) esophagus c) stomach d) liver e) small intestine
- b__ 23) A cecum is more likely to be large in a/an:
 a) carnivore b) herbivore
- a__ 24) Gastrin causes the stomach to release:
 a) gastric juice b) bile c) amylase d) lipase e) nucleases
- a__ 25) True or false: the main function of the large intestine is to absorb water:
 a) True b) False
- a__ 26) True or false: some animals breathe using only their skin:
 a) True b) False
- b__ 27) True or false: the surface where oxygen and carbon dioxide are exchanged must always be dry:
 a) True b) False
- b__ 28) A counter-current system is more efficient than a same current system because:
 a) it reaches equilibrium faster b) it never reaches equilibrium
 c) because oxygen atoms are oxygenated and turned into carbon dioxide d) none of the above
- c__ 29) Trachea are found in:
 a) earth worms b) lungless salamanders c) insects d) fish
- c__ 30) The trachea and bronchi in humans are covered with:
 a) flagella b) pseudopodia c) cilia d) filter hairs e) a hydrostatic charge
- b__ 31) Frogs breathe using:
 a) negative pressure breathing b) positive pressure breathing c) inverted pressure breathing
- a__ 32) An animal that uses one-way movement of air through it's lungs:
 a) bird b) human c) monkey d) dog e) cat
- c__ 33) The impulse to breathe is caused (indirectly) by:
 a) high levels of oxygen b) low levels of oxygen c) high levels of carbon dioxide
 d) low levels of carbon dioxide
- a__ 34) When oxygen levels are low, hemoglobin will:
 a) release oxygen b) absorb oxygen
- d__ 35) If you smoke, on average you will die about how many years earlier than a person who does not smoke?
 a) 2 b) 5 c) 10 d) 14

- e__36) Smoking can cause all of the following except:
 a) lung cancer b) premature wrinkling c) emphysema
 d) increased blood pressure & bad cholesterol e) there are no exceptions on this list
- d__37) Each year, about how many people die as a result of smoking in the U.S.
 a) 1,000 b) 10,000 c) 100,000 d) 480,000
- a__38) The biggest single cause of preventable deaths in the United States is:
 a) smoking
- c__39) In the fetus, blood from the right atrium can move to the (pick *best* answer):
 a) lungs b) left ventricle c) left atrium d) body e) brain
- c__40) Heart sounds are caused by the:
 a) ventricles contracting b) atria contracting c) heart valves closing d) a & b
- b__41) An average resting heart rate is about:
 a) 30 b) 70 c) 140 d) 200 e) 250
- e__42) Which of the following affects heart rate?
 a) condition b) hormones c) food d) body temperature e) all of the above
- a__43) True or false: the movement of blood in the veins is aided by valves.
 a) True b) False
- b__44) Platelets are part of the:
 a) non-living component of blood b) living component of blood
- e__45) A preventable cause of heart disease:
 a) aging b) family history c) disease d) being male e) smoking
- e__46) Cells damaged by a cut or scrape release which chemical that eventually triggers an inflammatory response?
 a) trypsin b) amylase c) antigens d) phagocytes e) histamine
- c__47) B-cells mature in the:
 a) thymus b) brain c) bone marrow d) liver e) kidneys
- a__48) An individual B-cell has how many *different* antigen receptors (careful):
 a) 1 b) 100,000 c) 100 million d) 100 billion
- a__49) True or false: vaccines can trigger the formation of memory cells:
 a) True b) False
- e__50) Antibodies can do all of the following except:
 a) coat bacteria and viruses b) hook bacteria and viruses together
 c) attach to antigens that are dissolved in body fluids d) activate complement proteins
 e) activate platelets to plug up bacteria and viruses

Reminder: please put your name and G-number on the scantron. *You may keep the exam.*