

Name: _____

G-number _____

Lab instructor's name: _____

**Introductory Biology II, Exam I
Summer, 2005**

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 & exam sheet. **Good luck!**

- ____ 1) A simple columnar epithelial cell has:
a) one layer b) two layers c) three layers d) many layers e) no layers
- ____ 2) A stratified cuboidal epithelial cell:
a) covers surfaces b) conducts nerve signals c) contracts d) connects things e) none of the above
- ____ 3) Smooth muscle:
a) helps move your arm b) helps move your leg c) helps your heart to beat
d) helps move your stomach e) none of the above
- ____ 4) Adipose tissue:
a) helps connect muscle and bone b) stores fats c) contracts
d) helps hold organs and tissues in place e) stores sugars
- ____ 5) A skeletal muscle cell is:
a) not very organized and has a single nucleus b) very organized and has a single nucleus
c) not very organized and multinucleate d) very organized and multinucleate
e) has intercalated disks
- ____ 6) Bone is a / an:
a) epithelial tissue b) nervous tissue c) contractile tissue d) connective tissue
e) cartilage tissue
- ____ 7) The definition of homeostasis is:
a) the maintenance of a constant internal environment b) the fluctuations caused by temperature
c) the response to thirst d) the fluctuations caused by salt balance
e) none of the above
- ____ 8) Conduction is the exchange of heat through:
a) the movement of air b) contact with another object c) water evaporating
d) direct exposure to sunlight e) the movement of water
- ____ 9) An animal that generates it's own heat and maintains a constant body temperature is an:
a) ectotherm and poikilotherm b) ectotherm and endotherm c) ectotherm and homeotherm
d) homeotherm and poikilotherm e) endotherm and homeotherm
- ____ 10) If these animals are awakened from hibernation too early, they may not have enough energy left to awaken a second time:
a) bats b) bears c) chipmunks d) humans e) squirrels

- ___ 11) These animals can tolerate a large amount of urea (=metabolic wastes) in their blood during winter:
a) bats b) bears c) chipmunks d) humans e) squirrels
- ___ 12) Humans respond to cold by:
a) shivering b) moving blood to the skin c) moving blood away from the skin
d) a & b e) a & c
- ___ 13) An animal that eats nothing but plants is also known as a:
a) carnivore b) insectivore c) herbivore d) omnivore e) detritivore
- ___ 14) The Krebs cycle is responsible for providing:
a) energy b) raw materials c) essential nutrients d) sunlight e) none of the above
- ___ 15) In the long term, excess energy is stored as:
a) fat b) glycogen c) carbohydrates d) proteins e) nucleic acids
- ___ 16) An example of a raw material for humans is:
a) vitamin A b) vitamin B c) organic carbon d) fatty acid e) sunlight
- ___ 17) Vision problems and dry scaly skin may be caused by:
a) an excess of vitamin A b) an excess of vitamin D c) an excess of vitamin C
d) not enough vitamin A e) not enough vitamin C
- ___ 18) The mouth begins digestion with the chemical breakdown of:
a) proteins b) nucleic acids c) fats d) starch e) pepsinogen
- ___ 19) The first 25 cm of the small intestine is known as the:
a) cecum b) large intestine c) omasum d) ventricle e) duodenum
- ___ 20) In many herbivores, this is at the junction of the small and large intestines:
a) cecum b) large intestine c) omasum d) ventricle e) duodenum
- ___ 21) The pancreas provides enzymes to break down all of the following EXCEPT:
a) proteins b) iron c) nucleic acids d) carbohydrates e) there are no exceptions
- ___ 22) Bile is stored in the:
a) liver b) urinary bladder c) gall bladder d) small intestine e) pancreas
- ___ 23) Most nutrients are taken from the small intestine and further processed by the:
a) liver b) urinary bladder c) gall bladder d) small intestine e) pancreas
- ___ 24) Feces are stored in the:
a) small intestine b) urinary bladder c) gall bladder d) pancreas e) rectum
- ___ 25) The smell or taste of food causes the stomach wall to release:
a) amylase into the bloodstream b) amylase into the stomach c) gastrin into the stomach
d) gastrin into the bloodstream e) none of the above
- ___ 26) Trachea are found in:
a) fish b) fungi c) lobster d) isopods e) insects
- ___ 27) Gills are found in:
a) fish b) fungi c) lizards d) insects e) humans

- ____ 28) Lungs are found in:
a) fish b) fungi c) insects d) isopods e) birds
- ____ 29) Gills are made more efficient by:
a) counter-current flow b) same-current flow c) being highly folded
d) a & c e) b & c
- ____ 30) the trachea in humans is supported by:
a) bone rings b) cartilage rings c) epithelial rings d) the trachea does not need support
- ____ 31) Helps to remove foreign particles from the trachea and bronchi:
a) cilia b) flagella c) gills d) mucus e) a & d
- ____ 32) These two groups of muscles help humans to breathe:
a) diaphragm and ribs b) diaphragm and shoulder c) ribs and chest d) chest and back
e) ribs and abdominal
- ____ 33) The alveoli are where:
a) oxygen is taken up and carbon dioxide released b) carbon dioxide is taken up and oxygen released
c) oxygen is taken up and carbon monoxide released d) none of the above
- ____ 34) Humans have:
a) positive pressure breathing b) neutral pressure breathing c) negative pressure breathing
- ____ 35) The movement of air through the lungs of birds is:
a) one way b) two way c) three way d) four way e) five way
- ____ 36) In areas of high concentration hemoglobin:
a) releases more oxygen b) picks up more oxygen c) does not interact with oxygen
d) a & b e) b & c
- ____ 37) Smoking can do all of the following except:
a) destroy cilia in the trachea & bronchi b) kill macrophages in the lungs
c) cause lung cancer d) cause emphysema e) give you youthful looking skin
- ____ 38) Smoking kills about how many people in the U.S. each year?
a) 44 b) 440 c) 4,400 d) 44,000 e) 440,000
- ____ 39) Humans have a:
a) closed circulatory system b) open circulatory system c) have no circulatory system
d) perforated circulatory system
- ____ 40) In the fetus, blood is provided by (careful: trick question!):
a) the umbilical artery b) the umbilical vein c) the placenta d) none of the above
- ____ 41) The structure connecting the right and left atria in the fetus is known as the:
a) ductus arteriosus b) foramen magnum c) foramen ovale d) ductus foramen e) the hole
- ____ 42) From the right ventricle, blood is taken to the (in the adult):
a) body b) left ventricle c) right atrium d) lungs e) liver

- ___ 43) Heart sounds are caused by:
a) the ventricles contracting b) the heart valves closing c) the ventricles relaxing
d) the heart valves opening e) the atria contracting
- ___ 44) Stroke volume is:
a) the amount of blood pumped by the right ventricle in one minute
b) the amount of blood pumped by the left ventricle in one minute
c) the amount of blood pumped by the right ventricle in one beat
d) the amount of blood pumped by the left ventricle in one beat
e) none of the above
- ___ 45) Diastole refers to:
a) the low blood pressure reading b) the high blood pressure reading
c) the contraction phase d) the relaxation phase e) none of the above
- ___ 46) The atria are coordinated to beat at the same time by the:
a) AV node b) ventricles c) SA node d) EKG e) ECG
- ___ 47) The biggest peak in an EKG is caused by:
a) the electrical signal causing the atria to contract
b) the electrical signal causing the ventricles to contract
c) the electrical signal dissipating as the atria relax
d) the electrical signal dissipating as the ventricles contract
e) the heart valves closing
- ___ 48) Usually a person in good shape will have a resting heart rate that is lower than a person in bad shape:
a) True b) False c) Can't tell
- ___ 49) A fever can increase heart rate:
a) True b) False c) Can't tell
- ___ 50) To help move blood back to the heart, veins have:
a) very high blood pressure b) valves c) suction coming from the heart d) a & b

Reminder: please put the name of your lab instructor on the front of the exam, then hand in your scantron and this exam.