Instructions: There are 50 questions; each is worth 2 pts. 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!

1) Your skin is made up mostly of what kind of tissue?
   a) epithelial    b) connective    c) nervous    d) muscle    e) none of the above

2) Simple squamous epithelium has what kind of shape?
   a) column    b) cube    c) triangular    d) flattened

3) Blood is what kind of tissue?
   a) epithelial    b) connective    c) nervous    d) muscle    e) none of the above

4) Voluntary muscles are also known as:
   a) smooth    b) cardiac    c) skeletal    d) involuntary    e) none of the above

5) Intercalated disks are found in what kind of tissue?
   a) epithelial    b) connective    c) nervous    d) muscle

6) Standing in the sun to warm up is an example of what kind of heat exchange?
   a) conduction    b) convection    c) radiation    d) evaporation

7) An animal that generates its own heat (controls its temperature internally), is termed a:
   a) endotherm    b) ectotherm

8) During cold weather, blood is:
   a) moved to the skin to help insulate you    b) moved away from the skin to prevent heat loss

9) True or false: A true hibernating animal (like a chipmunk) does not maintain its body temperature while hibernating:
   a) True    b) False

10) A dog is an example of a:
    a) suspension feeder    b) substrate feeder    c) fluid feeder    d) bulk feeder

11) Humans are:
    a) autotrophic    b) heterotrophic    c) homeotrophic    d) atrophic

12) Humans are (in general):
    a) carnivorous    b) herbivorous    c) omnivorous

13) In the long term, excess energy is stored as:
    a) glycogen    b) sucrose    c) fat    d) protein    e) nucleic acid

14) A lack of vitamin C causes:
    a) Rickets    b) bone deformities    c) elevated blood pressure    d) scurvy
15) An animal that starts to digest its prey outside the body:
   a) Dog  
   b) Cat  
   c) Human  
   d) Frog  
   e) Spider

16) True or false: chemical digestion begins in the oral cavity:
   a) True  
   b) False

17) The area in the back of the throat where the food and air passages cross is known as the:
   a) trachea  
   b) glottis  
   c) esophagus  
   d) pharynx  
   e) sinus

18) True or false: The stomach wall releases pepsin to help break down proteins *(read carefully)*:
   a) True  
   b) False

19) Controls the opening from the stomach into the small intestine:
   a) cardiac sphincter  
   b) pyloric sphincter  
   c) gastric sphincter

20) The duodenum is made up of the first 25cm (approximately) of the:
   a) large intestine  
   b) small intestine  
   c) cecum  
   d) stomach

21) The pancreas makes all of the following *except*:
   a) buffer  
   b) nucleases  
   c) amylase  
   d) lipase  
   e) bile

22) True or false: fats are absorbed by the hepatic portal vein and taken to the liver:
   a) True  
   b) False

23) If water moves too slowly through the large intestine the result is:
   a) diarrhea  
   b) constipation

24) True or false: Humans have a large cecum to help digest grass:
   a) True  
   b) False

25) In order to digest cellulose, cows have:
   a) a longer large intestine  
   b) A longer small intestine  
   c) An enlarged pancreas  
   d) a four part stomach

26) Earthworms breathe using their:
   a) lungs  
   b) trachea  
   c) skin  
   d) gills  
   e) alveoli

27) In many animals, gills are more efficient due to a:
   a) same-current system  
   b) counter-current system  
   c) reverse osmosis system

28) Insects breathe using:
   a) lungs  
   b) trachea  
   c) skin  
   d) gills  
   e) alveoli

29) The inside surface of the trachea (in humans) is covered by:
   a) flagella  
   b) pseudopodia  
   c) cilia  
   d) gills  
   e) alveoli

30) An example of an animal with positive pressure breathing:
   a) lobster  
   b) sponge  
   c) human  
   d) frog  
   e) dog

31) The urge to breathe is caused (indirectly) by:
   a) low oxygen levels  
   b) high oxygen levels  
   c) low carbon dioxide levels  
   d) high carbon dioxide levels
32) In areas with high levels of oxygen:
   a) hemoglobin releases oxygen  b) hemoglobin picks up oxygen

33) If you smoke, on average you will die about how many years earlier as a person who does not smoke?
   a) 2  b) 5  c) 10  d) 14

34) 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

35) 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) 440,000

36) The single biggest cause of preventable deaths in the United States is:
   a) smoking

37) The circulatory system in humans is:
   a) open  b) closed  c) porous  d) compact  e) all of the above

38) In adults, blood from the right ventricle goes to the:
   a) right atrium  b) lungs  c) body  d) left ventricle  e) liver

39) In the fetus, blood from the left ventricle goes to the:
   a) left atrium  b) right ventricle  c) lungs  d) body  e) right atrium

40) The amount of blood pumped out by the left ventricle in one beat is termed the:
   a) heart rate  b) stroke pump  c) cardiac input  d) cardiac output  e) stroke volume

41) Heart sounds are caused by:
   a) the ventricles contracting  b) the atria contracting  c) a & b  d) heart valves closing  e) none of the above

42) The second (large) peak in an EKG (or ECG) represents:
   a) the atria contracting  b) the atria relaxing  c) the ventricles contracting  d) the ventricles relaxing

43) A person who is in good shape will have a resting heart rate that is:
   a) lower than a person in bad shape  b) higher than a person in bad shape  c) the same as a person in bad shape

44) An average diastolic blood pressure is about:
   a) 40  b) 80  c) 120  d) 160  e) 200

45) To help move blood back to the heart, veins use (pick best answer):
   a) negative pressure  b) suction  c) high blood pressure  d) valves

46) Which is not a preventable risk factor for heart disease:
   a) smoking  b) diet  c) lack of exercise  d) age

47) Part of the non-specific immune system:
   a) B-cells  b) antibodies  c) T-cells  d) skin
48) B-cells mature in the:
   a) bone marrow  b) lymph nodes  c) thymus  d) thyroid

49) One of the things B-cells make when they are exposed to an antigen:
   a) T-cells  b) R-cells  c) interferon  d) pathogens  e) memory cells:

50) Helper T-cells are generally activated by:
   a) APC’s  b) antibodies  c) interferon  d) lymph nodes  e) nerve impulses

Reminders:

1) Please put your G-number on the scantron before you hand it in.

2) You may keep the exam.

3) Use blackboard to look up your score (hopefully within 24 hours).