

Student Name:

1. Histology would best be described as a study of _____.

2. What is the main, general purpose of negative feedback?

3. A good example of a positive feedback mechanism would be _____.

4. Regional term referring to the knee _____.

5. Cytology would best be described as an anatomical study of _____.

6. There are _____ different cell types.

7. During gestation, from 9 weeks until delivery it is called a _____.

8. _____ is the study of the anatomical structures involved in disease.

9. The correct sequence of levels forming the structural hierarchy is:

- 1

10. The biologic chemical breaking down process is called _____.

- A) anabolism
- B) catabolism**
- C) metabolism
- D) cannibalism

11. Absorption is:

A) uptake of food from the gut and into cells.

B) enzymatic break down of food.

C) taking in food.

D) breaking down of food into similar forms.

12. _____ is the increase in the size of a cell while _____ is the increase in the number of cells.

A) hyperplasia; hypertrophy

B) hypoplasia; hypotrophy

C) hypertrophy; hyperplasia

D) hypotrophy; hypoplasia

13. What is the most abundant chemical in the body?

A) Salt

B) Water

C) Potassium

D) Calcium

14. _____ is the maintenance of a relatively stable internal environment in the face of a constantly changing external environment.

A) Pressure

B) Chemical reaction

C) Atmospheric pressure

D) Homeostasis

15. Water compartmentalized inside a cell is termed _____.

A) intracellular water

B) interstitial fluid

C) intravascular fluid

D) extracellular water

16. When it comes to thermoregulation - the temperature insulation layer of the body is the _____ because it contains considerable _____.

A) Epidermis; muscle

B) Dermis; water

C) Hypodermis; fat

D) Deep Fascia; muscle

17. If you consider your home air conditioner in terms of homeostasis then the wall thermostat would be the _____.

A) control center

B) receptor

C) effector

D) variable

18. Which of the following statements is true concerning feedback mechanisms?
A) Positive feedback mechanisms always result in excessive damage to the host.
B) Negative feedback mechanisms tend to increase the original stimulus.
C) Negative feedback mechanisms work to prevent sudden severe changes within the body.
D) None of the above

19. Choose the anatomical topic and definition that is not correctly matched.
A) Gross anatomy: study of structures visible to the eye.
B) Microscopic anatomy: study of structures too small to be seen by the naked eye.
C) Cytology: study of the structures in a particular region.
D) Embryology: study of the changes in an individual from conception to birth.

20. Homeostasis is the condition in which the body maintains _____.
A) the lowest possible energy usage
B) a relatively stable internal environment, within limits
C) a static state with no deviation from preset points
D) a dynamic state within an unlimited range

21. Survival needs of the body include _____.
A) nutrients, water, movement, and reproduction
B) nutrients, water, growth, and reproduction
C) water, atmospheric pressure, growth, and movement
D) nutrients, water, atmospheric pressure, and oxygen

22. The anatomical position is used _____.
A) rarely, because people don't usually assume this position
B) as a standard reference point for directional terms regardless of the actual position of the body
C) only when a body is lying down
D) as the most comfortable way to stand when dissecting a specimen

23. The heart lies in the _____ cavity.
A) dorsal
B) **pericardial**
C) superior mediastinal
D) pleural

24. Which of the following describes a parasagittal plane?
A) Any cut dividing the body into anterior and posterior
B) A transverse cut just above the knees
C) Any sagittal plane except the median
D) Two cuts dividing the body into left and right halves

25. A plane that separates the body into an up (superior) and down (inferior) section.

- A) **transverse (horizontal) Plane**
- B) midsagittal Plane
- C) frontal Plane
- D) parasagittal Plane
- E) oblique

26. All of the following are located in the Right Upper Quadrant (RUQ) except _____.

- A) gall bladder
- B) **urinary bladder**
- C) small intestine
- D) colon/large intestine
- E) Liver

27. John is a 23-year old male with a knife wound through the right lower quadrant. One structure that can be injured is _____.

- A) **the appendix**
- B) the lung
- C) the heart
- D) the bladder
- E) the esophagus

28. The two lungs are located on either side of the _____

- A. **Mediastinum**
- B. Dorsal Cavity
- C. Ventral Cavity
- D. Anterior Cavity

29. The cavity in the thorax that contains the lungs is the _____

- A. Pericardial Cavity
- B. Abdominal Cavity
- C. **Pleural Cavity**
- D. Pelvic Cavity

30. What organs are found in the thoracic cavity?

- A. Only the lungs
- B. **Lungs & Heart**
- C. Only the heart
- D. None of the above

31. The human body is divided into ____ main cavities, which in turn, are divided into subcavities.

- A. Three
- B. Four
- C. **Five**
- D. Two

32. What organs are found in the pelvic cavity?

A. Urinary bladder, internal reproductive organs (uterus, testes, ovaries), rectum, anus, part of the large intestine

B. Only the reproductive organs (uterus, testes, ovaries)

C. Only the urinary bladder

D. None of the above

33. The _____ includes the front of the body (thoracic, pleural, and mediastinum cavities)

A. Pelvic Cavity

B. Abdominal Cavity

C. Ventral Cavity

D. Abdominopelvic Cavity

34. The _____ includes the head and backside of the body (cranial and spinal cavities)

A. Dorsal Body Cavity

B. Frontal Cavity

C. Coronal Cavity

D. Pelvic Cavity

35. The _____ cavity and spinal cavities are subdivisions of the dorsal cavity.

A. Pelvic

B. Abdominal

C. Thoracic

D. Cranial

36. The cranial and _____ cavities are subdivisions of the dorsal cavity.

A. Spinal

B. Pelvic

C. Abdominal

D. Thoracic

37. The cranial cavity contains the _____ .

A. Lungs

B. Heart

C. Brain

D. Pelvis

38. The _____ (chest cavity) the cavity in the vertebrate body enclosed by the ribs between the diaphragm and the neck and containing the lungs and heart.

A. Abdominopelvic Cavity

B. Thoracic Cavity

C. Cranial Cavity

D. Frontal Cavity

39. The part of the thoracic cavity between the lungs that contains the heart, thymus, trachea, esophagus, and other structures is the _____.

A. Pelvis

B. Mediastinum

C. Vertebral

D. Abdominal

40. The abdominal and pelvic cavities are the _____.

A. Abdominopelvic Cavity

B. Abdominal Cavity

C. Pelvic Cavity

D. None of the above

Essay Questions: Each essay question is worth 5 points.

41. A small family was traveling in its van and had a minor accident. The children in the back seats were wearing lap belts, but still sustained numerous bruises about the abdomen, and had some internal organ injuries. Why is this area more vulnerable to damage than others?

- This area is particularly vulnerable since the rib cage does not protect all of the visceral organs in the peritoneal cavity. The rib cage primarily covers the pleural half of the body, which includes the heart and lungs. The abdominal organs are not protected by a bony covering; hence they are not preserved. The forces exerted on the youngsters are enormous. They are additionally restrained by the seatbelts. Blunt force trauma can result in a range of devastating injuries. Internal organs can sustain impact injuries from the great force applied to the body during a crash, as well as penetrating injuries from items cutting through the flesh and puncturing the organ. Most organs damaged are liver, spleen and kidneys.

42. A surgeon removed a section of tissue along a transverse plane for microscopic examination. What two names would the section be called?

Cross section or a traverse section – a transverse cut through a plane or a cut that is perpendicular to main plane of an organ results in a cross /transverse section.

43. Judy is a 16 years-old female who collapses on the gym floor with severe pain in her chest wall. She is rushed by ambulance to the emergency room. Judy is diagnosed with pleurisy and is given anti-inflammatory medication through an IV (intravenous). Explain why anti-inflammatory medication would be prescribed for someone with pleurisy.

Pleurisy is a condition in which the pleura, two large, thin tissues that separate the lungs from the chest wall become inflamed. this causes a sharp chest pain that worsen during breathing therefore prescription of nonsteroidal anti-inflammatory drugs produces their therapeutic activities through inhibition of cyclooxygenase 2 the enzyme that makes prostaglandin. COX-2 is induced by inflammatory stimuli, such as cytokines, and produces PGs that contribute to the pain and swelling of inflammation. Thus, selective COX-2 inhibitors should be anti-inflammatory without side effects on the kidney and stomach

44. Explain what an 80-year old woman will have a higher chance of dieing from the COVID – 19 virus or if she recovers has a longer recovery time.

COVID-19 has proven to be particularly harmful to older people, who are more likely to experience severe symptoms, and be hospitalized as a consequence. COVID-19 affects multiple organ systems, has been shown to affect physical function, and is associated with prevalent delirium. There is emerging evidence that older people affected with COVID-19 may experience significant disability after the acute phase of their illness has passed. Ageing significantly affects the functions of the white blood cell and antibodies lowering the immunity. White blood cells move through blood and tissue throughout your body, looking for foreign invaders (microbes) such as bacteria, viruses, parasites and fungi. When they find them, they launch an immune attack.

White blood cells include lymphocytes (such as B-cells, T-cells and natural killer cells), and many other types of immune cells while antibodies help the body to fight microbes or the toxins (poisons) they produce. They do this by recognizing substances called antigens on the surface of the microbe, or in the chemicals they produce, which mark the microbe or toxin as being foreign. The antibodies then mark these antigens for destruction. There are many cells, proteins and chemicals involved in this attack. Therefore, effects in the white blood cells and antibodies lowers immunity and increase healing period

