Student name:\_\_\_\_\_\_\_\_\_\_

**TRUE/FALSE - Write 'T' if the statement is true and 'F' if the statement is false.
1)** Paired organs that are bilateral, on the left and right side of the body, would be separated by a midsagittal section.

 ⊚ true
 ⊚ false

**2)** The transition from a hunter-gatherer to an agricultural lifestyle greatly changed the types of diseases and injuries that early peoples suffered.

 ⊚ true
 ⊚ false

**3)** Patterns of growth in preserved bones and tooth decay reflect the health of the people of which they were a part.

 ⊚ true
 ⊚ false

**4)** The field of medicine arose as early healers abandoned superstitions and ideas about magic and started using natural chemicals and wondering why they were effective at treating illness.

 ⊚ true
 ⊚ false

**5)** Cadaver dissection is against the law in the United States.

 ⊚ true
 ⊚ false

**6)** The anatomy of a body part is closely related to its physiology.

 ⊚ true
 ⊚ false

**7)** We know all there is to know about the structure and function of the human body.

 ⊚ true
 ⊚ false

**8)** Cells with similar functions aggregate into organelles.

 ⊚ true
 ⊚ false

**9)** Macromolecules are built of atoms.

 ⊚ true
 ⊚ false

**10)** Organ systems consist of organs, which consist of tissues.

 ⊚ true
 ⊚ false

**11)** A cell is the basic unit of structure and function of an organism.

 ⊚ true
 ⊚ false

**12)** The chemical reaction of blood oxygenation is an example of a metabolic process.

 ⊚ true
 ⊚ false

**13)** Absorption is the ability to exhale carbon dioxide.

 ⊚ true
 ⊚ false

**14)** Reproduction is the change in body characteristics over time.

 ⊚ true
 ⊚ false

**15)** Oxygen is the primary raw material for new living material.

 ⊚ true
 ⊚ false

**16)** Temperature is a form of energy, whereas heat is a measurement of the intensity of the temperature.

 ⊚ true
 ⊚ false

**17)** Homeostasis is the maintenance of an unstable internal environment.

 ⊚ true
 ⊚ false

**18)** The maintenance of a steady body temperature in the face of fluctuating environmental conditions illustrates homeostasis.

 ⊚ true
 ⊚ false

**19)** The diaphragm separates the thoracic and the abdominopelvic cavities.

 ⊚ true
 ⊚ false

**20)** The parietal pericardium is attached to the surface of the heart.

 ⊚ true
 ⊚ false

**21)** The organ systems responsible for integration and coordination are the nervous and endocrine systems.

 ⊚ true
 ⊚ false

**22)** Kidneys are part of the lymphatic system.

 ⊚ true
 ⊚ false

**23)** The muscular system is responsible for body movements, maintenance of posture, and production of body heat.

 ⊚ true
 ⊚ false

**24)** The digestive system filters wastes from the blood.

 ⊚ true
 ⊚ false

**25)** The parietal pleura is a visceral membrane.

 ⊚ true
 ⊚ false

**26)** Aging begins in the fetus.

 ⊚ true
 ⊚ false

**27)** Chromosomes get longeras a cell ages.

 ⊚ true
 ⊚ false

**28)** Ceroid pigments and lipofuscin accumulate with aging, impairing the ability of a cell to withstand the damaging effects of oxygen free radicals.

 ⊚ true
 ⊚ false

**29)** The ears are lateral to the eyes.

 ⊚ true
 ⊚ false

**30)** The elbow is distal to the wrist.

 ⊚ true
 ⊚ false

**31)** A body in the anatomical position is lying down, as a cadaver would be positioned.

 ⊚ true
 ⊚ false

**32)** The following list accurately represents levels of organization in the body from smallest to largest: nucleus → chromosome → liver cell→ liver epithelial tissue → liver→ digestive system

 ⊚ true
 ⊚ false

**33)** The head is superior to the neck.

 ⊚ true
 ⊚ false

**34)** An older adult would be less vulnerable to emerging influenzas and other seasonal viruses due to increased cell efficiency and heightened cell division.

 ⊚ true
 ⊚ false

**35)** A researcher has questions about the functions of the greater omentum, a structure found in the abdominal cavity. They begin researching its various functions. This researcher is studying the physiology of the organ.

 ⊚ true
 ⊚ false

**36)** A researcher has questions about the structure of the mesentery, a tissue connecting the intestines to the wall of the abdominal cavity. They begin researching its location, components, and its specific structures. This researcher is studying the physiology of the organ.

 ⊚ true
 ⊚ false

**37)** The integumentary system is superficial to the skeletal system.

 ⊚ true
 ⊚ false

**CHECK ALL THE APPLY. Choose all options that best completes the statement or answers the question.
38)** Which of the following are signs of aging at the cellular level? *(Check all that apply)*

 A) Graying hair, waning strength, and wrinkles.
 B) Unrepaired DNA and abnormal proteins.
 C) Impaired cell division and the ability to break down and recycle worn cell parts.
 D) A fatty liver and clogged blood vessels.

**MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.
39)** An investigator who conducts an experiment to determine how temperature changes affect the rate at which the heart beats is most likely a(n) \_\_\_\_\_\_\_\_\_\_.

 A) anatomist
 B) physiologist
 C) chemist
 D) biochemist

**40)** Why are the topics of anatomy and physiology difficult to separate?

 A) Physiological functions depend on anatomy of structures.
 B) Physiological functions in an organism are ongoing.
 C) The body parts take up space.
 D) Our understanding of physiology is changing more than our understanding of anatomy.

**41)** The activities of an anatomist consist of \_\_\_\_\_\_\_\_\_\_, whereas those of a physiologist consist of \_\_\_\_\_\_\_\_\_\_.

 A) observing bodyparts; studying functions of body parts
 B) conducting experiments; making microscopic examinations
 C) studyingmolecules; observing forms of the body parts
 D) sketching; dissecting

**42)** What is the origin of the term "anatomy"?

 A) From the Greek word for "function".
 B) Named after the first anatomist.
 C) From the Greek word for "cutting up".
 D) For the function of internal organs.

**43)** What is the term "physiology" is relatedto?

 A) The Latin word for "physical shape".
 B) The structure of internal organs.
 C) The Greek word for "cutting up".
 D) The Greek word for "relationship to nature".

**44)** What is illustrated by the recent discovery of taste receptors in the small intestine that detect sweetness?

 A) Chemical responses occur in only one part of the body.
 B) New discoveries about anatomy and physiology are still being made.
 C) Everything there is to know about anatomy and physiology has been discovered.
 D) The molecular and cellular levels are of little interest in anatomy and physiology.

**45)** Which of the following is **not** true of organelles?

 A) They carry on specific activities.
 B) They are only in cells of humans.
 C) They are composed of aggregates of large molecules.
 D) They are found in many types of cells.

**46)** Which of the following lists best illustrates increasing levels of complexity?

 A) Cells, tissues, organelles, organs, organ systems.
 B) Tissues, cells, organs, organelles, organ systems.
 C) Organs, organelles, organ systems, cells, tissues.
 D) Organelles, cells, tissues, organs, organ systems.

**47)** In all organisms, what is the basic unit of structure and function?

 A) The atom
 B) The organelle
 C) The macromolecule
 D) The cell

**48)** Specialized cell types organized in a way that provides a specific function form \_\_\_\_\_\_\_\_\_\_.

 A) tissues
 B) organs
 C) organ systems
 D) organelles

**49)** Simple squamous epithelium is an example of which organizational level?

 A) Organ system
 B) Organ
 C) Tissue
 D) Molecule

**50)** What is assimilation?

 A) The changing of absorbed substances into different chemical forms.
 B) The breaking down of foods into nutrients that the body can absorb.
 C) The elimination of waste from the body.
 D) The increase in body size without a change in overall shape.

**51)** The ability of an organism to sense and react tochanges in its body is an example of \_\_\_\_\_\_\_\_\_\_.

 A) circulation
 B) respiration
 C) responsiveness
 D) absorption

**52)** What process is defined as the removal of wastes?

 A) Metabolism
 B) Absorption
 C) Assimilation
 D) Excretion

**53)** Which of the following characteristics of life and their descriptions is correct?

 A) Responsiveness: obtaining and using oxygen to release energy from food.
 B) Assimilation: sensing changes inside or outside the body and reacting to them.
 C) Respiration: changing absorbed substances into forms that are chemically different from those that entered the body fluids.
 D) Circulation: the movement of substances in body fluids.

**54)** What is the definition of metabolism?

 A) The removal of wastes produced by chemical reactions.
 B) The breakdown of substances into simpler forms.
 C) The taking in of nutrients.
 D) The chemical reactions occurring in an organism that support life.

**55)** Which of the following processes does **not** help to maintain the life of an individual organism?

 A) Responsiveness
 B) Movement
 C) Reproduction
 D) Respiration

**56)** Which of the following processes is most important to the continuation of the human species?

 A) Responsiveness
 B) Movement
 C) Reproduction
 D) Respiration

**57)** What is the definition of homeostasis?

 A) The changing external conditions.
 B) The maintenance of stable external conditions.
 C) The changing internal conditions.
 D) The maintenance of stable internal conditions.

**58)** Which of the following is an example of a positive homeostatic mechanism in the human body?

 A) Shivering when body temperature falls below normal.
 B) Increasing heart rate and force of contraction when blood pressure falls.
 C) Retention of fluid leading to retention of more fluid.
 D) Secreting insulin after a meal to return blood sugar concentration toward normal.

**59)** Which of the following are typically required to maintain a stable internal environment?

 A) Positive feedback mechanisms.
 B) An unstable outside environment.
 C) Decreased atmospheric pressure.
 D) Negative feedback mechanisms.

**60)** You accidentally cut your hand. Bloodplatelets in the area begin to attach to the broken blood vessel walls in the wound. What needs to happen next to create a positive feedback mechanism?

 A) The platelets change shape and encourage more platelets to rush in and stick to each other to form plugs that seal the broken vessels.
 B) The platelets sticking to the broken blood vessels signals the blood to stop flowing to that area, which stops the bleeding.
 C) The sensation of pain in your hand causes your muscles to jerk your hand away from the danger.
 D) The platelets send signals to the brain to slow heart rate and slow the bleeding.

**61)** Which of the followingmustthe human body obtain from the environment in order to survive?

 A) Nitrogen
 B) Wastes
 C) Water
 D) Carbondioxide

**62)** Homeostasis exists if concentrations of water, nutrients, and oxygen in the body are balanced and heat and pressure \_\_\_\_\_\_\_\_\_\_.

 A) decreasesteadily
 B) remain withincertain limited ranges
 C) increase when thebody is stressed
 D) fluctuate greatly between very high and low values

**63)** In negative feedbackmechanisms, what occurs due to changes that move a variable away from the normal state?

 A) Stimulation to change the variable in the same direction.
 B) Inhibition of all body reactions.
 C) Stimulation to change the variable in the opposite direction.
 D) Stimulation to reduce all requirements of the body.

**64)** What is the effect of a positive feedback mechanism?

 A) It causes long-term changes.
 B) It moves conditions away from the normal state.
 C) It brings conditions back to the normal state.
 D) It produces stable conditions.

**65)** Which of the following illustrates a positive feedback mechanism?

 A) Maintenance of blood pressure.
 B) Uterine contractions during childbirth.
 C) Body temperature control.
 D) Control of blood sugar.

**66)** Which of the following is true regarding the effect of a positive feedback mechanisms?

 A) They are theprimary means of maintaining homeostasis.
 B) They stabilizeconditions.
 C) Theycauseunstable conditions, at least temporarily.
 D) They maintain theinternal environment.
 E) They moveconditions toward a setpoint.

**67)** Which of the following diseases would originate in the abdominopelvic cavity?

 A) Asthma
 B) Laryngitis
 C) Myopia (near-sightedness)
 D) Pancreatitis

**68)** Pneumothorax (collapsed lung) is a condition that occurs when an air-filled space forms between the lung and the wall of the pleural cavity. This space would be between the \_\_\_\_\_\_\_\_\_\_.

 A) parietal pleura and visceral pleura
 B) parietal pleura and visceral pericardium
 C) visceral pericardium and parietal pericardium
 D) parietal pericardium and parietal pleura

**69)** What is a main function ofthe digestive system?

 A) Formation ofcells
 B) Movement of bodyparts
 C) Absorption ofnutrients
 D) Providing oxygen for the extraction ofenergy from nutrients.

**70)** Which of the following is **not** part of the female reproductive system?

 A) The uterus
 B) The uterine tube
 C) The vulva
 D) The scrotum

**71)** The thoracic cavity is \_\_\_\_\_\_\_\_\_\_ to the abdominopelvic cavity.

 A) dorsal (posterior)
 B) ventral (anterior)
 C) superior
 D) inferior

**72)** Blood cells are produced in the organs of the \_\_\_\_\_\_\_\_\_\_ system.

 A) endocrine
 B) skeletal
 C) respiratory
 D) muscular

**73)** A parietal layer of a serous membrane \_\_\_\_\_\_\_\_\_\_, whereas a visceral layer of a serous membrane \_\_\_\_\_\_\_\_\_\_.

 A) covers organs; lines cavities
 B) lines cavities; covers organs
 C) secretes serousfluid; secretes mucus
 D) secretes mucus; secretes a serous fluid

**74)** When does cell death first occur?

 A) Around age 60
 B) Around age 50
 C) At puberty
 D) During fetal development

**75)** What causes wrinkling and sagging of the skin?

 A) Drinking too much water
 B) Genetics
 C) Loss of subcutaneous fat, elastin, and collagen.
 D) Excess subcutaneous fat

**76)** What is a characteristic that many centenarians share?

 A) They had high level of exercise throughout life.
 B) They have long-lived relatives.
 C) They follow the Mediterranean diet.
 D) They never smoked.

**77)** A body has been sectioned in such a way that both lungs and the urinary bladder are visible.What type of section was used?

 A) Frontal
 B) Transverse
 C) Coronal
 D) Sagittal

**78)** The upper midportion of the abdomen is called the \_\_\_\_\_\_\_\_\_\_region.

 A) hypochondriac
 B) iliac
 C) hypogastric
 D) epigastric

**79)** When the body is placed in the anatomical position, which of the following is  **not** true?

 A) The head is facingto the front.
 B) The palms are facing backwards.
 C) The body iserect.
 D) The upperlimbsare at the sides.

**80)** What is the anatomical term that indicatesa structure close to the surface?

 A) Anterior
 B) Proximal
 C) Superficial
 D) Superior

**81)** What type of structures can be visualized using ultrasonography?

 A) Dense organs, such as bones.
 B) Air-filled organs, such as lungs.
 C) Soft internalstructures, such as fetuses.
 D) Microscopic structures, such as mitochondria.

**82)** Magnetic resonance imaging uses \_\_\_\_\_\_\_\_\_\_.

 A) X-rays
 B) radio waves
 C) radioisotopes
 D) high-frequency sound waves

**83)** What is/are the origin(s) of many of the terms in anatomy and physiology?

 A) Greek and Latin
 B) Spanish and Portuguese
 C) French and German
 D) Chinese and Japanese

**84)** At what level of organization is skin?

 A) Tissue level
 B) Cellular level
 C) Organ level
 D) System level
 E) Chemical level

**85)** What requirement of life is the most abundant chemical in the body and is the major component of extracellular fluid?

 A) Water
 B) Oxygen
 C) Cell
 D) Heat
 E) Food

**86)** Name two types of cavities found in the head.

 A) Paranasal sinuses and nasal cavity
 B) Oral cavity and mediastinum
 C) Cranial cavity and vertebral canal
 D) Middle ear cavities and pleural cavities

**87)** What organ system includes the kidneys?

 A) Respiratory system
 B) Digestive system
 C) Endocrine system
 D) Urinary system

**88)** The pancreas releases hormones. It also releases enzymes needed to break down food. Because of this dual role, the pancreas could be considered part of what two organ systems?

 A) Nervous and digestive systems
 B) Cardiovascular and lymphatic systems
 C) Endocrine and digestive systems
 D) Urinary and endocrine systems
 E) Lymphatic and integumentary systems

**89)** Bell's palsy results in the lack of stimulation to facial muscles, so they do not contact. Bell's palsy is associated with what organ system?

 A) Nervous system
 B) Endocrine system
 C) Skeletal system
 D) Integumentary system

**90)** Which is a physiological description rather than an anatomical one?

 A) The heart muscle is involuntarily and fatigue-resistant.
 B) The skin is composed of an epithelial layer over a connective tissue layer.
 C) The quadriceps femoris and hamstring muscles are located in the thigh.
 D) The aorta is a large vessel connected to the heart.

**91)** The femoral region is \_\_\_\_\_\_\_\_ to the popliteal region.

 A) distal
 B) medial
 C) proximal
 D) lateral

**FILL IN THE BLANK. Write the word or phrase that best completes each statement or answers the question.
92)** Agriculture began in some countries as recently as \_\_\_\_\_\_\_\_\_\_ years ago.

**93)** Dissection of human bodies became part of formal medical school coursework in the \_\_\_\_\_\_\_\_\_\_ century.

**94)** The branch of science that deals with the structure of human body parts is called \_\_\_\_\_\_\_\_\_.

**95)** The branch of science that deals with the functions of human body parts is called \_\_\_\_\_\_\_\_\_\_.

**96)** A group of cells with common properties that are organized into a layer or mass is called a(n) \_\_\_\_\_\_\_\_\_\_.

**97)** A subcellular structure built of assemblies of macromolecules that carries out a particular function is a(n) \_\_\_\_\_\_\_\_\_\_.

**98)** The process by which food substances are chemically changed into simpler forms that can be absorbed is called \_\_\_\_\_\_\_\_\_\_.

**99)** The term \_\_\_\_\_\_\_\_\_\_ refers to an increase in body size without overall change in shape.

**100)** The most abundant molecule in the human body is \_\_\_\_\_\_\_\_\_\_.

**101)** Self-regulating control mechanisms usually operate by a process called \_\_\_\_\_\_\_\_\_\_ feedback.

**102)** The potential space between the \_\_\_\_\_\_\_\_\_\_ membranes is called the pleural cavity.

**103)** The chemicals secreted by endocrine glands are called \_\_\_\_\_\_\_\_\_\_.

**104)** Deep vein thrombosis, heart attack, and high blood pressure are all diseases of the \_\_\_\_\_\_\_\_\_\_ system.

**105)** Individuals who live more than 100 years arecalled \_\_\_\_\_\_\_\_\_\_.

**106)** Standing erect with face and palms forward and upper limbs at the sides describes the \_\_\_\_\_\_\_\_\_\_ position.

**107)** A lengthwise cut that divides the body into right and left portions is termed a(n) \_\_\_\_\_\_\_\_\_\_ section.

**Answer Key**Test name: Prentice1

1) TRUE

2) TRUE

3) TRUE

4) TRUE

5) FALSE

6) TRUE

7) FALSE

8) FALSE

9) TRUE

10) TRUE

11) TRUE

12) TRUE

13) FALSE

14) FALSE

15) FALSE

16) FALSE

17) FALSE

18) TRUE

19) TRUE

20) FALSE

21) TRUE

22) FALSE

23) TRUE

24) FALSE

25) FALSE

26) TRUE

27) FALSE

28) TRUE

29) TRUE

30) FALSE

31) FALSE

32) FALSE

33) TRUE

34) FALSE

35) TRUE

36) FALSE

37) TRUE

38) [B, C]

39) B

40) A

41) A

42) C

43) D

44) B

45) B

46) D

47) D

48) A

49) C

50) A

51) C

52) D

53) D

54) D

55) C

56) C

57) D

58) C

59) D

60) A

61) C

62) B

63) C

64) B

65) B

66) C

67) D

68) A

69) C

70) D

71) C

72) B

73) B

74) D

75) C

76) D

77) A

78) D

79) B

80) C

81) C

82) B

83) A

84) C

85) A

86) A

87) D

88) C

89) A

90) A

91) C

92) [6, 000]

93) twentieth

94) anatomy

95) physiology

96) tissue

97) organelle

98) digestion

99) growth

100) water

101) negative

102) pleural

103) hormones

104) cardiovascular

105) centenarians

106) anatomical

107) sagittal