
Human Anatomy & Physiology

Chapter-1

Scope of Anatomy & Physiology

1. Which statement is false regarding the anatomical position?
 - (a) The palms face the front.
 - (b) The thumbs point away from the body.
 - (c) The head is turned to the left side.
 - (d) The posture is standing erect.
2. The nose is superior to the navel.
 - (a) True
 - (b) False
3. What's another name for anterior?
 - (a) Dorsal
 - (b) Ventral
 - (c) Cranial
 - (d) Caudal
4. The word anterior means:
 - (a) At or toward the front of the body
 - (b) Away from the insertion point of a structure.
 - (c) At the back or rear of the body.
 - (d) Toward the middle of the body.
5. The wrist is distal to the elbow.
 - (a) True
 - (b) False
6. What's another word for "superior?"
 - (a) Internal
 - (b) Caudal
 - (c) External
 - (d) Cranial
7. The skin is _____ to the skeletal bones.
 - (a) Superior
 - (b) Proximal
 - (c) Superficial
 - (d) Inferior
8. The heart is _____ to the shoulder.
 - (a) Medial
 - (b) Lateral
 - (c) Distal
 - (d) Proximal
9. The elbow is _____ between the wrist and shoulder.
 - (a) Medial
 - (b) Intermediate
 - (c) Distal
 - (d) Lateral
10. What is the term for the backside or "back" in the anatomical position:
 - (a) Anterior
 - (b) Ventral
 - (c) Caudal
 - (d) Posterior

11. The radius (forearm bone) is _____ to the humerus (upper arm bone).
(a) Intermediate (b) Proximal
(c) Distal (d) Anterior
12. Which of the following cell organelles is absent in animal cells and present in a plant cell?
(a) Cell wall (b) Cytoplasm
(c) Vacuoles (d) Mitochondria
13. Which of the following cell organelles does not contain DNA?
(a) Nucleus (b) Lysosomes
(c) Chloroplast (d) Mitochondria
14. Which of the following statements is true about the cell wall?
(a) The cell wall is mainly composed of lipid
(b) The cell wall is mainly composed of starch
(c) The cell wall is mainly composed of protein
(d) The cell wall is mainly composed of cellulose
15. Which of the following statements is true about cell theory?
(a) The Cell theory does not apply to fungi
(b) The Cell theory does not apply to virus
(c) The Cell theory does not apply to algae
(d) The Cell theory does not apply to microbes
16. _____ is a jellylike substance found floating inside the plasma membrane.
(a) Cell sap (b) Cytoplasm
(c) Karyoplasm (d) Mitochondria
17. Which of the following cell organelles is called the powerhouse of the cell?
(a) Nucleus (b) Lysosomes
(c) Chloroplast (d) Mitochondria
18. Which of the following cell organelles regulates the entry and exit of molecules to and from the cell?
(a) Lysosomes (b) Golgi bodies
(c) Cell membrane (d) Mitochondria

19. _____ is the study of the cell, its types, structure, functions and its organelles.
- (a) Biology
 - (b) Cell Biology
 - (c) Microbiology
 - (d) Biotechnology
20. Which of the following cell organelles is called a suicidal bag?
- (a) Lysosomes
 - (b) Golgi bodies
 - (c) Cell membrane
 - (d) Mitochondria
21. Which of the following cell organelles is absent in prokaryotic cells?
- (a) Nucleus
 - (b) Lysosome
 - (c) Endoplasmic Reticulum
 - (d) All of the above
22. Which of the following cell organelles is involved in the storage of food, and other nutrients, required for a cell to survive?
- (a) Vacuoles
 - (b) Lysosome
 - (c) Mitochondria
 - (d) Cell membrane
23. Which of the following cell organelles is involved in the breakdown of organic matter?
- (a) Lysosomes
 - (b) Cytoplasm
 - (c) Golgi bodies
 - (d) Mitochondria
24. _____ is involved in the synthesis of phospholipids.
- (a) Mitochondria
 - (b) Cytoplasm
 - (c) Endoplasmic Reticulum
 - (d) Smooth Endoplasmic Reticulum
25. Which of the following cell organelles is present in plant cells and absent in animal cells?
- (a) Nucleus
 - (b) Vacuole
 - (c) Chloroplast
 - (d) Cytoplasm
26. Which of the following statements is true about chromosomes?
- (a) It is present within the nucleus
 - (b) It carries genes and helps in inheritance
 - (c) It is composed of DNA in the form of Chromatin and protein
 - (d) All of the above

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- 27. Which of the following is a single membrane-bound organelle?**
(a) Vacuole (b) Golgi Apparatus
(c) Endoplasmic Reticulum (d) All of the above
- 28. Which of the following cell organelles is present in animal cells and absent in plant cells?**
(a) Nucleus (b) Centrosome
(c) Golgi bodies (d) All of the above
- 29. Which of the following is not a double membrane-bound organelle?**
(a) Chloroplast (b) Mitochondria
(c) Endoplasmic Reticulum (d) All of the above
- 30. Which of the following statements is true about the Golgi bodies?**
(a) It is a sac-like organelle
(b) It is located near the nucleus
(c) It helps in transporting the particles throughout the cell.
(d) All of the above
- 31. Which of the following statements is true about the Nucleus?**
(a) It is absent in prokaryotes
(b) It is called the brain of the cell
(c) It contains DNA and other genetic materials.
(d) All of the above
- 32. Who discovered cell in 1665?**
(a) Robert Hook (b) Robert Crook
(c) David Thomson (d) Marie Francois
- 33. Name an Organelle which serves as a primary packaging area for molecules that will be distributed throughout the cell?**
(a) Mitochondria (b) Plastids
(c) Golgi apparatus (d) Vacuole
- 34. Name the outermost boundary of the cell?**
(a) Plasma membrane (b) Cytoplasm
(c) Nuclear membrane (d) None of the above

35. Name the process in which the ingestion of material by the cells is done through the plasma membrane?
- (a) Egestion (b) Diffusion
(c) Osmosis (d) Endocytosis
36. Which among the following sentence is not correct about the organelles?
- (a) They are found in all Eukaryotic cells.
(b) They are found in multicellular organisms.
(c) They coordinate to produce the cell.
(d) They are small sized and mostly internal.
37. Name the process in which the passage of water goes from a region of higher concentration to a region of lower concentration through a semi permeable membrane?
- (a) Diffusion (b) Osmosis
(c) Both (a) and (b) (d) Neither (a) nor (b)
38. Name an organism that contains a single chromosome and cell division occurs through fission or budding?
- (a) Eukaryotes (b) Prokaryotes
(c) Bacteria (d) Primitive organism
39. Name the process in which the membrane of a vesicle can fuse with the plasma membrane and extrude its contents to the surrounding medium?
- (a) Exocytosis (b) Endocytosis
(c) Osmosis (d) Diffusion
40. The jelly-like substance present inside the cell is known as:
- (a) Cytoplasm (b) Ectoplasm
(c) Nucleoplasm (d) None of the above

Answer Keys

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|---------|---------|---------|---------|---------|---------|
| 1. (c) | 2. (a) | 3. (b) | 4. (a) | 5. (a) | 6. (a) |
| 7. (c) | 8. (a) | 9. (b) | 10. (d) | 11. (c) | 12. (a) |
| 13. (b) | 14. (d) | 15. (b) | 16. (b) | 17. (d) | 18. (c) |
| 19. (b) | 20. (a) | 21. (d) | 22. (a) | 23. (a) | 24. (d) |
| 25. (c) | 26. (d) | 27. (d) | 28. (b) | 29. (c) | 30. (d) |
| 31. (d) | 32. (a) | 33. (c) | 34. (a) | 35. (d) | 36. (b) |
| 37. (b) | 38. (b) | 39. (a) | 40. (a) | | |

Chapter-2

Elementary Tissue

1. Tissue means

- (a) Similar cells having common origin
- (b) Similar cells having common origin and functions
- (c) Cells having same metabolic activities
- (d) Similar cells with same metabolic activities

2. Simple tissue is defined as

- (a) Group of similar cells which are common in origin
- (b) Different type of cells performing same functions
- (c) Different type of cells performing different functions
- (d) Organized group of cells performing many functions

3. Compound tissue is defined as

- (a) Similar type of cells held together by connective tissue
- (b) Different type of cells which are different structure and function
- (c) Different types of cells performing one function
- (d) Similar cells at different regions performing many functions

4. Epithelial cells get nutrient material from

- (a) Neighbouring cells
- (b) Blood vessels
- (c) Lymph vessel
- (d) Underlying tissue

5. Microvilli of epithelial cells

- (a) Increase surface area
- (b) Protect the cells
- (c) Engulf the foreign matter
- (d) Give moments to the cells

6. Maximum intercellular substance is found in

- (a) Connective tissue
- (b) Nervous tissue
- (c) Epithelial tissue
- (d) Muscular tissue

7. Squamous epithelium is also called

- (a) Germinal epithelium
- (b) Columnar epithelium
- (c) Pavement epithelium
- (d) Sensory epithelium

8. Epidermis of skin vertebrates comprises

- (a) Simple epithelium
- (b) Stratified epithelium
- (c) Transitional epithelium
- (d) Columnar epithelium

9. **Ciliated epithelium cells are present in**
 - (a) Buccal cavity of Frog
 - (b) Stomach of Frog
 - (c) Pancreatic duct of pancreas
 - (d) None of these
10. **Human mammary glands belong to one of the following type of glands**
 - (a) Simple alveolar
 - (b) Coiled tubular
 - (c) Compound tubulo-alveolar
 - (d) Simple tubular
11. **Tessellated epithelium is found in**
 - (a) Lining of intestine
 - (b) Lining of blood vessel
 - (c) Seminiferous tubule
 - (d) Uriniferous tubules
12. **Germinal epithelium cells are present in**
 - (a) Seminiferous tubules
 - (b) Uriniferous tubules
 - (c) Lining of stomach
 - (d) Inner lining of trachea
13. **Transitional epithelium is found in**
 - (a) Larynx
 - (b) Vein
 - (c) Kidney
 - (d) Ureter and renal pelvis
14. **Outer layer of skin that frog casts off is composed of**
 - (a) Simple squamous epithelium
 - (b) Tessellated epithelium
 - (c) Ciliated epithelium
 - (d) Cuboidal epithelium
15. **Areolar tissue connects**
 - (a) The skin with muscles
 - (b) Muscles to muscles
 - (c) Bone to bone
 - (d) Bone to muscles
16. **Matrix of the connective tissue is secreted by**
 - (a) Fibrocytes
 - (b) Histiocytes
 - (c) Mast cells
 - (d) Plasma cells
17. **Dermis of the skin is formed of**
 - (a) Adipose connective tissue
 - (b) Epithelium tissue
 - (c) Muscular tissue
 - (d) Areolar connective tissue

18. Tendon is made up of

- (a) Yellow fibrous connective tissue
- (b) Adipose tissue
- (c) Modified white fibrous tissue
- (d) Areolar tissue

19. Yellow fibres are made up of

- (a) Ossein
- (b) Elastin
- (c) Chondrin
- (d) Collagen

20. When the glandular cells breakdown completely, the gland is known as

- (a) Holocrine gland
- (b) Apocrine gland
- (c) Merocrine gland
- (d) None of the above

21. Perichondrium covers the

- (a) Bone
- (b) Cartilage
- (c) Decalcified bone
- (d) Dried bone

22. Hyaline cartilage is present at

- (a) The ends of digits
- (b) Tip of the nose
- (c) Epiglottis of mammals
- (d) Articular ends of long bones

23. Calcified cartilage is present in

- (a) Pinna
- (b) Supra scapula of pectoral girdle of frog
- (c) Ends of bones
- (d) Intervertebral discs

24. The process of bone formation is called

- (a) Ossification
- (b) Calcification
- (c) Calcinations
- (d) None of these

25. Matrix of cartilage is secreted by

- (a) Chondrocytes
- (b) Chondroblasts
- (c) Osteocytes
- (d) Histiocytes

26. The main difference between bone and cartilage is of

- (a) Mineral salts
- (b) Blood vessels
- (c) Lymph vessels
- (d) Haversian canals

27. 60% inorganic components are present in

- (a) Cartilage
- (b) Bone
- (c) Connective tissue
- (d) None of these

- 28. RBC that lack nuclei when they are mature are of**
(a) Frog (b) Lizard
(c) Man (d) Birds
- 29. Blood clot is mainly due to**
(a) Plasma and RBC (b) Plasma and thrombocytes
(c) Heparin and corpuscles (d) Fibrin and corpuscles
- 30. Which of the following is not phagocytic**
(a) neutrophils (b) monocytes
(c) Lymphocytes (d) Eosinophils
- 31. Blood platelets are present in the blood of**
(a) Fishes (b) Amphibians
(c) Reptiles (d) Mammals
- 32. Agranulocytes normally develop in**
(a) Bone marrow (b) Liver
(c) Lymph glands and spleen (d) None of these
- 33. Granulocytes are produced in**
(a) Liver (b) Bone marrow
(c) Spleen (d) None of these
- 34. Formation of platelets is known as**
(a) Haemopoiesis (b) Thrombopoiesis
(c) Haemolysis (d) None of these
- 35. Percentage of protein is more in**
(a) Lymph (b) Blood
(c) Plasma (d) W.B.C.
- 36. Which of the following acts as middle man**
(a) W.B.C. (b) Plasma
(c) Blood (d) Lymph
- 37. In man, the number of R.B.C. per cubic mm of blood is**
(a) 1 to 3 millions
(b) 5 to 5.4 millions
(c) Less than one million but more than 50 thousand
(d) Less than 50 thousand
- 38. Life span of a W.B.C. in man is**
(a) 100 days (b) 50 days
(c) 7 days (d) None of the above

39. **Blood platelets are**
(a) Nucleated (b) Nucleus is many lobed
(c) Nucleus is very small (d) Denucleated
40. **The diameter of RBC is**
(a) 10.3 μm (b) 9.2 μm
(c) 7.2 μm (d) 8.1 μm
41. **Formation of antibodies is the function of**
(a) Monocytes (b) Neutrophils
(c) Basophils (d) Lymphocytes
42. **Life span of mammalian R.B.C. is**
(a) 120-128 days (b) 100 days
(c) Less than 100 days (d) None of the above
43. **The main difference of the blood and lymph is**
(a) Absence of RBC
(b) Absence of WBC
(c) Number of WBC is less in blood
(d) None of these
44. **Which blood corpuscle is largest in diameter**
(a) Erythrocyte (b) Monocyte
(c) Neutrophil (d) Lymphocyte
45. **Which of the W.B.C. has many lobed nucleus**
(a) Monocytes (b) Lymphocytes
(c) Neutrophils (d) Basophils
46. **Matrix of bone is arrange**
(a) In concentric layers
(b) Not in concentric layers
(c) Matrix froms the ground substance
(d) None of these
47. **Which of the following lack blood supply**
(a) Bone (b) Connective tissue
(c) Cartilage (d) None of these
48. **Volkman's canal connects**
(a) Osteocyte with matrix
(b) Different bones
(c) Haversian canal with matrix
(d) Haversian canal with other Haversian canals

49. Ossification of connective tissue result in

- (a) Cartilage
- (b) Sesamoid bone
- (c) Membrane bone
- (d) None of the above

50. Bone has longitudinal canals, called

- (a) Central canals
- (b) Haversian canals
- (c) Volkmann's canals
- (d) None of the above

Answer Keys

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|---------|---------|---------|---------|---------|---------|
| 1. (b) | 2. (a) | 3. (c) | 4. (d) | 5. (a) | 6. (a) |
| 7. (c) | 8. (b) | 9. (a) | 10. (c) | 11. (b) | 12. (a) |
| 13. (d) | 14. (a) | 15. (a) | 16. (a) | 17. (a) | 18. (c) |
| 19. (b) | 20. (a) | 21. (b) | 22. (d) | 23. (b) | 24. (a) |
| 25. (b) | 26. (b) | 27. (b) | 28. (c) | 29. (d) | 30. (c) |
| 31. (d) | 32. (c) | 33. (b) | 34. (b) | 35. (b) | 36. (d) |
| 37. (b) | 38. (c) | 39. (c) | 40. (d) | 41. (d) | 42. (a) |
| 43. (a) | 44. (b) | 45. (c) | 46. (a) | 47. (c) | 58. (d) |
| 49. (c) | 50. (b) | | | | |

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Chapter-3

Skeletal System

1. What does Axial Skeleton consists of:

- (a) Skull
- (b) Vertebral Column
- (c) Ribs and Sternum
- (d) All of the above

2. Name the longest and heaviest bone of the body?

- (a) Femur
- (b) Fibula
- (c) Tibia
- (d) Ilium

3. Name the only movable bone in the skull of man?

- (a) Ethmoid bone
- (b) Mandible bone
- (c) Nasal bone
- (d) Lacrimal bone

4. Name the thinnest bone of human body?

- (a) Stapes
- (b) Malleus
- (c) Incus
- (d) Fibula

5. Name the muscle that act in opposition to each other?

(a) Cardiac Muscles	(b) Skeletal Muscle
(c) Antagonists muscle	(d) Stapedius muscle
6. Name the smallest muscle?

(a) Gutters maximus	(b) Antagonisits
(c) Stapedius	(d) None of the above
7. Due to the presence of which pigment skeletal muscles are categorised in to red and white muscles?

(a) Sarcoplasmic	(b) Myoglobin
(c) Myosin	(d) None of the above
8. Finger bones are also known as.....?

(a) Hamate bone	(b) Girdles
(c) Phalanges	(d) Metacarpal
9. How many types of Joints are present in our body?

(a) 2	(b) 3
(c) 4	(d) 5
10. The record of electrical activity of muscle is known as?

(a) Electro-Cardiogram (ECG)
(b) Electro-Myogram (EMG)
(c) Both a and b
(d) Neither a nor b
11. Which of these is not a function of the skeletal system?

(a) Mineral storage	(b) Protection of organs
(c) Movement	(d) Metabolism
12. What type of tissue is cartilage?

(a) Muscular	(b) Epithelial
(c) Connective	(d) Nervous
13. The presence of what makes the matrix of bones hard?

(a) Phosphate salts	(b) Chondroitin salts
(c) Calcium salts	(d) Sodium salts
14. The presence of what makes the matrix of cartilages slightly pliable?

(a) Chondroitin salts	(b) Phosphate salts
(c) Calcium salts	(d) Sodium salts

15. How many bones do we have?
(a) 273 (b) 270
(c) 206 (d) 201
16. How many bones are present in the axial skeleton?
(a) 126 (b) 65
(c) 80 (d) 106
17. Which of these bones are not a part of the axial skeleton?
(a) Clavicle (b) Skull
(c) Sternum (d) Ribs
18. How many facial bones does the skull possess?
(a) 22 (b) 8
(c) 12 (d) 14
19. What is the shape of the hyoid bone?
(a) S – shape (b) L – shape
(c) U – shape (d) C – shape
20. The inner ear contains three bones-Malleus, Incus and Stapes. True or false?
(a) True (b) False
21. How many occipital condyles do humans possess?
(a) 4 (b) 1
(c) 3 (d) 2
22. How many vertebrae do humans possess?
(a) 33 (b) 30
(c) 26 (d) 22
23. What is the central hollow portion of each vertebra known as?
(a) Spinal canal (b) Vertebral canal
(c) Neural canal (d) Axial canal
24. Which vertebra articulates with the occipital condyles?
(a) Atlas (b) Axis
(c) Sacral vertebra (d) Coccygeal vertebra
25. How many regions is the vertebral column divided into?
(a) 6 (b) 5
(c) 7 (d) 4

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (d) | 2. (a) | 3. (b) | 4. (d) | 5. (c) | 6. (c) |
| 7. (b) | 8. (c) | 9. (b) | 10. (b) | 11. (d) | 12. (c) |
| 13. (c) | 14. (a) | 15. (b) | 16. (c) | 17. (a) | 18. (d) |
| 19. (c) | 20. (d) | 21. (d) | 22. (c) | 23. (c) | 24. (a) |
| 25. (b) | | | | | |

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Chapter-4 Cardiovascular System

1. How many chambers does the heart have?
(a) Six (b) Five
(c) Four (d) Three
2. The movement of blood through the heart and body is called:
(a) Circulation (b) Locomotion
(c) Ventriculation (d) Heart pump
3. The beating sound your heart makes comes from:
(a) Blood going in the wrong direction
(b) Valves closing
(c) The heart skipping beats
(d) Your ears playing tricks on you
4. With circulation, the heart provides your body with:
(a) Oxygen
(b) Nutrients
(c) A way to get rid of waste
(d) All of the above
5. The atria are the “upstairs” chambers of the heart and these parts are the “downstairs” chambers:
(a) Valves (b) Ventricles
(c) Blood (d) Candy hearts
6. What wall separates the left side and right side of the heart?
(a) Ventricle (b) Atrium
(c) Septum (d) The great wall

7. What parts act like doors that control blood flow in the heart?
 - (a) Valves
 - (b) Heart dams
 - (c) Kidneys
 - (d) Chambers
8. What organ removes waste from blood?
 - (a) Heart
 - (b) Lungs
 - (c) Eyes
 - (d) Kidneys
9. You can keep your heart strong by:
 - (a) Eating heart-shaped candy
 - (b) Doing activities, like playing outside, riding your bike, and swimming
 - (c) Smoking
 - (d) Sleeping 18 hours a day
10. These are tubes that carry blood back to the heart:
 - (a) Arteries
 - (b) Veins
 - (c) Pipes
 - (d) Tubas
11. The branch of science deals with blood, blood forming tissues and its disorders is called _____.
 - (a) Hemopoiesis
 - (b) Cardiovascular system
 - (c) Plasmology
 - (d) Hematology
12. Human has open blood circular system.
 - (a) True
 - (b) False
13. Out of the following, which one is NOT the physical characteristics of the blood?
 - (a) Volume is 15-16 liters in an average sized adult male
 - (b) Slightly alkaline pH
 - (c) Constitute 20% of extracellular fluid
 - (d) Provide 8% of total body mass
14. Blood helps in transportation of the following components, except one, identify that?
 - (a) Hormone
 - (b) Oxygen
 - (c) Heat
 - (d) Lymph
15. Which of the following is NOT a plasma protein?
 - (a) Albumin
 - (b) Globulin
 - (c) Fibrinogen
 - (d) Fibronectin

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- 16. What is a serum in the blood?**
(a) Liquid portion of blood
(b) Plasma minus fibrinogen
(c) Tissue fluid within lymphatic vessel
(d) Formed elements and plasma
- 17. Name the term which defines the amount of RBC present in the blood?**
(a) Hemoglobin
(b) Hemopoiesis
(c) Hematocrit
(d) Myoglobin
- 18. What is the site of hemopoiesis in an embryo?**
(a) Yolk sac
(b) Liver
(c) Thymus
(d) Spleen
- 19. Name the term given to abnormally low levels of white blood cells?**
(a) Leukocytosis
(b) Leucopenia
(c) Lymphocyte
(d) Thrombopoietin
- 20. Name the term given to the failure of bone marrow to produce RBC.**
(a) Aplastic anemia
(b) Hemolytic anemia
(c) Thalassemia
(d) Hemorrhagic anemia
- 21. Which type of anemia is responsible for the disease thalassemia?**
(a) Aplastic anemia
(b) Hemolytic anemia
(c) Hemorrhagic anemia
(d) Iron deficiency anemia
- 22. Which of the following membrane is responsible for the protection of the heart?**
(a) Epicardium
(b) Endocardium
(c) Myocardium
(d) Pericardium
- 23. ECG records electrical changes in which of the following layers of the heart, mark the correct option.**
(a) Epicardium
(b) Pericardium
(c) Endocardium
(d) Myocardium
- 24. Where is the heart beat initiated?**
(a) right atrium
(b) right ventricle
(c) left atrium
(d) left ventricle

25. Which one of the following is found in the wall of both arteries and capillaries?
- (a) connective tissue
 - (b) smooth muscle cells
 - (c) endothelial cells
 - (d) elastic fibres
26. From which part of the body has the blood come, if it is entering the heart of a human from the inferior vena cava?
- (a) the abdomen
 - (b) the lungs
 - (c) the head
 - (d) the arms
27. Sphincter muscles are typically found in the walls of which vessels?
- (a) arteries
 - (b) Arterioles
 - (c) veins
 - (d) capillaries
28. Where does the tricuspid valve prevent backflow of blood?
- (a) From the right atrium to the right ventricle.
 - (b) From the right ventricle to the right atrium.
 - (c) From the left atrium to the left ventricle.
 - (d) From the left ventricle to the left atrium.
29. Which of the following options occur during ventricular systole in a mammalian heart?
- (a) ventricular volume increases
 - (b) bicuspid (mitral) valve opens
 - (c) ventricular pressure increases
 - (d) aortic pressure decreases
30. Which one of the following contributes to the first “lub” sound?
- (a) The closing of the bicuspid (mitral) valve.
 - (b) The opening of the tricuspid valve.
 - (c) The closing of the semi-lunar valves.
 - (d) The opening of the semi-lunar valves.
31. Which one of the following contributes to the second “dupp” sound?
- (a) The closing of the bicuspid (mitral) valve.
 - (b) The opening of the tricuspid valve.
 - (c) The closing of the semi-lunar valves.
 - (d) The opening of the semi-lunar valves.

32. How many types of blood circulation are present in the body?
(a) 2 (b) 3
(c) 4 (d) 1
33. Which type of circulation circulated blood between the heart and body cells?
(a) systemic circulation (b) pulmonary circulation
(c) coronary circulation (d) conduction system
34. Which type of muscle fibers facilitates the conduction system?
(a) skeletal muscle (b) cardiac muscle
(c) auto-rhythmic fibers (d) both b and c
35. Which of the following areas are supplied by the coronary circulation?
(a) right atrium (b) interventricular septum
(c) left ventricle (d) all of the above
36. Which of the following statement is NOT true?
(a) coronary arteries are branched from systemic capillaries
(b) purkinje fibers spread impulses within the entire ventricle myocardium
(c) pulmonary circulation converts deoxygenated blood into oxygenated
(d) pulmonary veins carries oxygenated blood
37. which of the following valve is present between the right atrium and right ventricle?
(a) tricuspid valve (b) bicuspid valve
(c) sl valve (d) none of the above
38. At what point, the impulses flow from atria to the ventricles?
(a) av node (b) sa node
(c) bundle of HIS (d) right and left bundle branches
39. Which of the following structure is NOT supplied by the systemic circulation?
(a) bronchioles (b) trachea
(c) alveoli (d) nose
40. Which of the following carries the oxygenated blood?
(a) superior vena-cava (b) inferior vena-cava
(c) coronary sinus (d) none of the above

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (c) | 2. (a) | 3. (b) | 4. (d) | 5. (b) | 6. (c) |
| 7. (a) | 8. (d) | 9. (b) | 10. (b) | 11. (d) | 12. (b) |
| 13. (a) | 14. (c) | 15. (d) | 16. (b) | 17. (c) | 18. (a) |
| 19. (b) | 20. (a) | 21. (b) | 22. (d) | 23. (d) | 24. (a) |
| 25. (c) | 26. (a) | 27. (b) | 28. (b) | 29. (b) | 30. (c) |
| 31. (a) | 32. (c) | 33. (a) | 34. (c) | 35. (d) | 36. (a) |
| 37. (a) | 38. (c) | 39. (c) | 40. (d) | | |

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Chapter 5

Respiratory System

- The exchange of gases between blood and cells is called**
(a) pulmonary ventilation (b) internal respiration
(c) external respiration (d) cellular respiration
- The nose serves all the following functions EXCEPT:**
(a) as the initiator of the cough reflex
(b) warming and humidifying the air
(c) cleansing the air
(d) as a passageway for air movement
- Surface tension of the alveolar fluid is reduced by the presence of**
(a) mucus (b) sebum
(c) surfactant (d) water
- When the diaphragm and external intercostals muscles contract, which of the following actions does NOT occur?**
(a) air moves into the lung
(b) the intrapleural pressure increases
(c) the diaphragm moves inferiorly
(d) the intrapulmonary pressure decreases
- When we inhale**
(a) alveolar pressure decreases and intrapleural pressure increases
(b) both alveolar pressure and intrapleural pressure increase

- (c) both alveolar pressure and intrapleural pressure decrease
 - (d) alveolar pressure increases and intrapleural pressure decreases
6. Which of the body systems listed below cooperate to supply O₂ to cells and eliminate CO₂?
-) digestive system
 -) cardiovascular system
 -) urinary system
 -) respiratory system
 -) endocrine system
- (a) 3, 5 (b) 2, 4
(c) 1, 2 (d) 1, 2, 4
7. In the lungs
- (a) PCO₂ in the alveoli is the same as that in the capillaries
 - (b) PO₂ in the alveoli is the same as that in the capillaries
 - (c) PCO₂ in the alveoli is higher than that in the capillaries
 - (d) PCO₂ in the alveoli is lower than that in the capillaries
8. As blood enters the systemic capillaries
- (a) PO₂ in the blood is the same as PCO₂ in the tissues
 - (b) PO₂ in the blood is higher than that in the tissues
 - (c) PO₂ in the blood is lower than that in the tissues
 - (d) PO₂ in the blood is the same as that in the tissues
9. During swallowing, the glottis is covered by
- (a) false vocal cord (b) true vocal cord
 - (c) epiglottis (d) Adam's apple
10. Which of the following describes a correct order of structures in the respiratory passageways?
- (a) pharynx, trachea, larynx, bronchi, bronchioles
 - (b) larynx, pharynx, trachea, bronchioles, bronchi
 - (c) trachea, pharynx, larynx, bronchi, bronchioles
 - (d) pharynx, larynx, trachea, bronchi, bronchioles
11. The volume of air that can be exhaled after normal exhalation is the
- (a) tidal volume
 - (b) residual volume
 - (c) inspiratory reserve volume
 - (d) expiratory reserve volume

12. The primary chemical stimulus for breathing is the concentration of
- (a) carbon monoxide in the blood
 - (b) carbon dioxide in the blood
 - (c) oxygen in the blood
 - (d) carbonic acid in the blood
13. During internal and external respiration, gases move by
- (a) osmosis
 - (b) active transport
 - (c) diffusion
 - (d) endocytosis
14. Most oxygen in the blood is transported
- (a) as gas dissolved in plasma
 - (b) as oxyhemoglobin
 - (c) as carboxyhemoglobin
 - (d) as bicarbonate
15. Tidal volume in human beings is
- (a) 1000 ml
 - (b) 1500 ml
 - (c) 500 ml
 - (d) 4.5 ml
16. Residual volume in lungs of an average human is
- (a) 500 ml
 - (b) 3-4.5 ml
 - (c) 1000 ml
 - (d) 1500 ml
17. Vital capacity of lungs of an average human is
- (a) 3000-4500 ml
 - (b) 1500-1800 ml
 - (c) 2000-2500 ml
 - (d) 500-1000 ml
18. Volume of air left after maximum forceful expiration in human lung is
- (a) Total lung capacity
 - (b) Residual volume
 - (c) Vital capacity
 - (d) Tidal volume
19. Partial pressure of oxygen in the inspired and expired air is respectively
- (a) 158 and 116 mm Hg
 - (b) 158 and 40 mm Hg
 - (c) 100 and 95 mm Hg
 - (d) 40 and 95 mm hg
20. The function of tracheal cilia is to
- (a) Pass mucus out
 - (b) Pass mucus in
 - (c) Pass air out
 - (d) Pass air out

21. Opening to the trachea is covered by a small flap of tissues termed as the _____.
 (a) glottis (b) trachea
 (c) epiglottis (d) larynx
22. The exchange of gases between inhaled air and blood is referred as _____.
 (a) cellular respiration (b) external respiration
 (c) internal respiration (d) circulatory respiration
23. The maximum volume of air contained in the lung by a full forced inhalation is called
 (a) vital capacity (b) tidal volume
 (c) total lung capacity (d) inspiratory capacity
24. Aerobic respiratory pathway is also termed as _____ pathway.
 (a) anabolic (b) catabolic
 (c) creatine phosphate (d) amphibolic
25. The maximum volume of air that can be released from the lungs by forceful expiration after deepest inspiration is called the _____.
 (a) total lung capacity (b) vital capacity
 (c) tidal volume (d) ventilation rate
26. Which one is the cofactor of carbonic anhydrase?
 (a) cu (b) zn
 (c) fe (d) mg
27. The trachea divides into two smaller tubes called _____.
 (a) bronchi (b) trachea
 (c) microtrachea (d) eustachian tubes
28. Listed below are four respiratory capacities (a - d) and four jumbled respiratory volumes of a normal human adult
Respiratory capacities Respiratory volumes
 (a) Residual volume 2500 mL
 (b) Vital capacity 3500 mL
 (c) Inspiratory reserve volume 1200 mL
 (d) Inspiratory capacity 4500 mL

Which one of the following is the correct matching of two capacities and volumes?

- (a) (a) 4500 mL, (b) 3500 mL
- (b) (b) 2500 mL, (c) 4500 mL
- (c) (c) 1200 mL, (d) 2500 mL
- (d) (d) 3500 mL, (a) 1200 mL

29. Inner surface of the bronchi, bronchioles and fallopian tubes are lined by

- (a) cubical epithelium (b) columnar epithelium
- (c) squamous epithelium (d) ciliated epithelium

30. Which one of the following statement is NOT correct regarding trachea?

- (a) it usually lies posterior to the muscular esophagus.
- (b) it splits into the right and left bronchi to supply air to the lungs
- (c) opening to the trachea is covered by epiglottis.
- (d) tracheal rings are c-shaped

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (b) | 2. (a) | 3. (c) | 4. (b) | 5. (c) | 6. (b) |
| 7. (d) | 8. (b) | 9. (c) | 10. (d) | 11. (d) | 12. (b) |
| 13. (c) | 14. (b) | 15. (c) | 16. (d) | 17. (a) | 18. (b) |
| 19. (a) | 20. (a) | 21. (c) | 22. (b) | 23. (c) | 24. (d) |
| 25. (b) | 26. (b) | 27. (a) | 28. (d) | 29. (d) | 30. (a) |

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Chapter-6 Urinary System

1. An organ or structure that is not a component of the urinary system is the:

- (a) urethra. (b) urinary bladder.
- (c) ureter. (d) adrenal gland.
- (e) kidney.

2. The kidneys are:

- (a) help regulate blood volume.
- (b) help control blood pressure.
- (c) help control pH.
- (d) all of the above are correct.

3. All of the following belong to the urinary system except:

- (a) urethra.
- (b) ureter.
- (c) bladder.
- (d) prostate.

4. The urinary system is the principal system responsible for:

- (a) removal of carbon dioxide.
- (b) water and electrolyte balance.
- (c) excretion of toxic nitrogenous compounds.
- (d) a and b
- (e) b and c
- (f) a, b, and c

5. The structure that connects a kidney to the urinary bladder is the

- (a) ureter.
- (b) urethra.
- (c) renal pelvis.
- (d) collecting duct.

6. What portion of the nephron extends into the medulla?

- (a) nephron loop.
- (b) proximal convoluted tubule.
- (c) distal convoluted tubule.
- (d) papillary duct.

7. The functional unit of the kidney is called a

- (a) glomerulus.
- (b) nephron.
- (c) corpuscle.
- (d) calyx.

8. Which of the following statements concerning the kidneys is false?

- (a) they are retroperitoneal.
- (b) they each contain 8 to 15 renal pyramids.
- (c) they each have a distinct renal cortex and renal medulla region.
- (d) they are positioned between the third and fifth lumbar.

9. Which of the following is the correct sequence in which urine flows through the kidney toward the urinary bladder?

- (a) renal pelvis, major calyx, minor calyx, papillary duct, ureter.
- (b) papillary duct, minor calyx, major calyx, renal pelvis, ureter.

- (c) minor calyx, major calyx, papillary duct, renal pelvis, ureter.
 - (d) papillary duct, major calyx, minor calyx, ureter, renal pelvis.
- 10. Which of the following statements concerning the ureters is false?**
- (a) the mucosa of each ureter is composed of transitional epithelium.
 - (b) they are composed of three tunics.
 - (c) muscular peristaltic waves move urine through the ureters.
 - (d) they are located within the peritoneal cavity.
- 11. The micturition reflex center is located in the:**
- (a) kidney.
 - (b) cerebrum.
 - (c) sacral segment of the spinal cord.
 - (d) urinary bladder.
 - (e) hypothalamus.
- 12. All of the following statements are True related to the urethra of a male except:**
- (a) it serves both the urinary and reproductive systems.
 - (b) it contains a single urethral sphincter near the neck of the urinary bladder.
 - (c) it receives secretions from the bulbourethral glands.
 - (d) it consists of three distinct regions.
 - (e) it is approximately 20 cm long in an adult.
- 13. Which of the following is the proper sequence of structures in the nephron?**
- (a) glomerulus, proximal convoluted tubule, distal convoluted tubule, nephron loop.
 - (b) glomerulus, nephron loop, proximal convoluted tubule, distal convoluted tubule.
 - (c) glomerulus, proximal convoluted tubule, nephron loop, distal convoluted tubule.
 - (d) proximal convoluted tubule, glomerulus, nephron loop, distal convoluted tubule.
- 14. Fibrous connective tissue that surrounds each kidney is the:**
- (a) cortex.
 - (b) hilum.
 - (c) medulla.
 - (d) renal capsule.

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- (e) renal pyramids.
- 15. The apex of the renal pyramid is called the:**
- (a) major calyx. (b) minor calyx
(c) renal papilla. (d) renal pelvis.
(e) ureter.
- 16. The tuft of capillaries in the renal corpuscle is called the**
- (a) podocytes. (b) glomerulus.
(c) calyx. (d) renal pyramid.
(e) renal sinus.
- 17. The location of the kidneys in relationship to the peritoneal lining of the abdominal cavity is referred to as**
- (a) retroperitoneal. (b) retroabdominal.
(c) posterior. (d) dorsal.
- 18. The triangular area of the urinary bladder between the two ureters posteriorly and the urethra anteriorly is the**
- (a) external urinary sphincter.
(b) internal urinary sphincter.
(c) smooth muscle.
(d) transitional epithelium.
(e) trigone.
- 19. The renal medulla is composed of tissue called ____.**
- (a) Renal pyramids (b) Nephrons
(c) Renal sinus (d) Renal pelvis
- 20. Juxtaglomerular cells combine with ____ cells to form the juxtaglomerular apparatus in the kidney.**
- (a) Macula densa (b) Renal pelvis
(c) Nephron (d) Renal sinus
- 21. Which of the following is not in the sequence of proper kidney blood flow? The starting point is the renal artery and the finishing point is the renal vein.**
- (a) Arciform artery (b) Afferent arteriole
(c) Interlobar vein (d) Arciform vein
- 22. Which is found in the highest concentration in the urine?**
- (a) Uric acid (b) Urea
(c) Glucose (d) Creatinine

- 23. The primary function of the ascending loop of Henle in the kidney is?**
- (a) The active re-absorption of sodium
 - (b) The active re-absorption of chloride ions
 - (c) The passive re-absorption of potassium
 - (d) The passive re-absorption of urea
- 24. The middle layer of the urinary bladder is identified as _____.**
- (a) Mucous coat
 - (b) Submucous coat
 - (c) Muscular Coat
 - (d) Sphincter Coat
- 25. The micturition reflex center is located in the _____.**
- (a) Pons
 - (b) Midbrain
 - (c) Lumbar plexus
 - (d) Sacral plexus
- 26. Which of the following match with the definition: a poor output of urine?**
- (a) Oliguria
 - (b) Pyruia
 - (c) Enuresis
 - (d) Diuresis
- 27. Capillary loops located in the medulla are also known as _____.**
- (a) Vasa recta
 - (b) Urea collectors
 - (c) Trigone
 - (d) Macula densa
- 28. The primary function of the descending loop of Henle in the kidney is?**
- (a) Reabsorption of sodium ions
 - (b) Reabsorption of water by osmosis
 - (c) Secretion of hydrogen ions
 - (d) Secretion of potassium ions
- 29. Which of the following is not considered a part of the male urethra?**
- (a) Prostatic
 - (b) Membranous
 - (c) Vasapore
 - (d) Penile
- 30. When glucose is found in urine it is called _____.**
- (a) Glucosuria
 - (b) Uremia
 - (c) Ureteritis
 - (d) Glucose intolerance

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (d) | 2. (d) | 3. (d) | 4. (e) | 5. (a) | 6. (a) |
| 7. (b) | 8. (d) | 9. (b) | 10. (d) | 11. (c) | 12. (b) |
| 13. (d) | 14. (c) | 15. (b) | 16. (a) | 17. (d) | 18. (a) |
| 19. (a) | 20. (a) | 21. (c) | 22. (b) | 23. (b) | 24. (b) |
| 25. (d) | 26. (a) | 27. (a) | 28. (b) | 29. (c) | 30. (a) |

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Chapter 7

Muscular System

- Skeletal muscle tissues are controlled by?**
(a) somatic division (b) parasympathetic division
(c) cns (d) sympathetic division
- Muscle cells are also known as?**
(a) myofibrils (b) filaments
(c) muscle fibers (d) none of the above
- What is the diameter of thick filaments?**
(a) 10nm (b) 16mm
(c) 12nm (d) 16nm
- Which of the following muscle tissue are voluntary in nature?**
(a) cardiac muscle (b) smooth muscle
(c) autorhythmic muscle (d) none of the above
- What is the main function of myoglobin?**
(a) extensibility (b) elasticity
(c) binds O₂ together (d) both a and c
- What is the function of muscular tissue?**
(a) storage (b) movement of bones
(c) stabilize body position (d) all of the above
- What is the function of structural proteins?**
(a) generates contractile force
(b) controls contraction
(c) proper alignment of filaments
(d) binds O₂

- 8. Which of the following statement is true?**
(a) titin is one of the regulatory protein
(b) storage is one of the properties muscular tissue
(c) sarcomere are the functional unit of myofibril
(d) h-zone contains all thin filaments
- 9. What separates one sarcomere from another?**
(a) i-band (b) h-zone
(c) z-discs (d) a-band
- 10. Division of joints allowing ample movement between 2 or more specific heads of bones are grouped as**
(a) diarthrosis (b) tendons and tibia
(c) synarthroses (d) ligaments and femur
- 11. Ligaments restrict this action**
(a) cartilage junction (b) hyper extension
(c) hyper flexion (d) both (b) and (c)
- 12. In muscle contraction, this ion is essential**
(a) Cl (b) Ca
(c) K (d) Na
- 13. This is an example of stretch reflex stimulated by passive muscle movement**
(a) patellar reflex
(b) tendon reflex
(c) flexor reflex
(d) ipsilateral reflex
- 14. This is a major energy source in a hurdle race to the leg muscles**
(a) glycolysis (b) lactate and pyruvate
(c) performed ATP (d) oxidative metabolism
- 15. This event occurs during muscular contraction**
I. H-zone disappears
II. A band widens
III. I band shortens
IV. Width of A band is unaffected
V. M line and Z line get closer
(a) I, II and III (b) I, III, IV and V
(c) II, IV and V (d) I, II and V

16. Muscles utilized for controlling the flow of all substances within lumen are grouped as
 - (a) hormonal system
 - (b) skeletal system
 - (c) cardiac muscles
 - (d) smooth muscles
17. Division of joints fibrous in nature permitting no movement is
 - (a) tendons and tibia
 - (b) ligaments and femur
 - (c) diarthrosis
 - (d) synarthroses
18. A small band of dense, white and fibrous elastic tissue is grouped as
 - (a) ligament
 - (b) muscle junction
 - (c) muscle filament
 - (d) muscle cartilage
19. In the striated muscles, the functional unit of contractile system is
 - (a) Z band
 - (b) cross bridges
 - (c) sarcomere
 - (d) myofibril
20. Which of the following types of muscle are found in the stomach or blood vessels?
 - (a) cardiac
 - (b) skeletal
 - (c) visceral
 - (d) striated
21. A large broad sheet of connective tissue, such as on the abdomen, is called a/an _____.
 - (a) aponeurosis
 - (b) epimysium
 - (c) perimysium
 - (d) endomysium
22. The membrane that is the closest to the individual muscle fiber is the _____.
 - (a) aponeurosis
 - (b) epimysium
 - (c) perimysium
 - (d) endomysium
23. A group of skeletal muscle fibers is called a/an _____.
 - (a) perimysium
 - (b) fascicle
 - (c) epimysium
 - (d) tendon
24. The structure that connects muscles to bones is the _____.
 - (a) aponeurosis
 - (b) fascicle
 - (c) tendon
 - (d) ligament

25. The fibers of a muscle that are connected to the overlying skin fibers is the _____.

- (a) subcutaneous fascia (b) deep fascia
- (c) subserous fascia (d) tendon

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (a) | 2. (c) | 3. (b) | 4. (d) | 5. (c) | 6. (d) |
| 7. (c) | 8. (c) | 9. (c) | 10. (a) | 11. (d) | 12. (b) |
| 13. (a) | 14. (d) | 15. (b) | 16. (d) | 17. (d) | 18. (a) |
| 19. (c) | 20. (c) | 21. (c) | 22. (a) | 23. (d) | 24. (b) |
| 25. (b) | | | | | |

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Chapter—8 Central Nervous System

1. This system controls everything you do:
 - (a) nervous system (b) olfactory system
 - (c) respiratory system (d) endocrine system
2. Without the nervous system, you couldn't:
 - (a) walk (b) breathe
 - (c) think (d) all of the above
3. The nervous system is made up of these three parts:
 - (a) brain, heart, and spinal cord
 - (b) brain, spinal cord, and nerves
 - (c) nerves, arteries, and veins
 - (d) nerves, liver, and heart
4. Which part of the body is the control center for the nervous system?
 - (a) spinal cord (b) stomach
 - (c) brain (d) heart
5. A typical brain weighs how much?
 - (a) 3 pounds (1.4 kilograms)
 - (b) 3 ounces (85 grams)
 - (c) 3 tons (2.7 metric tons)
 - (d) 3 kilograms (6.6 pounds)

6. **What is the biggest part of the brain?**
(a) brain stem (b) think tank
(c) cerebrum (d) cerebellum
7. **Which part of the brain helps keep your balance so you don't fall flat on your face?**
(a) cerebellum (b) medulla oblongata
(c) pituitary gland (d) spinal cord
8. **Which part of the brain keeps you breathing?**
(a) breathe-o-meter (b) brain stem
(c) pituitary gland (d) cerebellum
9. **The brain creates connections, or pathways, between these microscopic cells:**
(a) blood cells (b) tiny cell phones
(c) brain tissues (d) neurons
10. **Your emotions are believed to come from the:**
(a) cerebellum (b) medulla oblongata
(c) amygdala (d) heart
11. **Nervous System consists of:**
(a) brain (b) spinal cord
(c) nerves (d) all the above
12. **Which of the following statement is correct about Cerebellum?**
(a) it regulates the muscular movement for locomotion.
(b) it is a part of brain.
(c) both a and b
(d) neither a nor b
13. **Which nerves are attached to the brain and emerge from the skull?**
(a) cranial nerves (b) spinal nerves
(c) thoracic nerves (d) sacral nerves
14. **Name the system that controls every activity that you do?**
(a) nervous system (b) exocrine system
(c) endocrine system (d) respiratory system
15. **What is the unit of Nervous system?**
(a) brain (b) spinal cord
(c) neuron (d) nerves

16. A microscopic gap between a pair of adjacent neurons over which nerve impulses pass when going from one neuron to the next is called:
- (a) neurotransmitter
 - (b) synapse
 - (c) axon
 - (d) none of the above
17. our body involuntary actions are controlled by:
- (a) medulla in hindbrain
 - (b) medulla in forebrain
 - (c) medulla in spinal cord
 - (d) medulla in midbrain
18. Those reflex actions which involve brain are called:
- (a) stimulus
 - (b) cerebral reflexes
 - (c) spinal reflexes
 - (d) reflex arc
19. Pons, cerebellum and medulla are part of which brain?
- (a) forebrain
 - (b) midbrain
 - (c) hindbrain
 - (d) none of the above
20. Spinal Cord originates from which part of the brain?
- (a) cerebellum
 - (b) medulla
 - (c) pons
 - (d) cerebrum
21. Which part of the brain has a blood-brain barrier?
- (a) anterior pituitary
 - (b) posterior pituitary
 - (c) pineal body
 - (d) area postrema of the fourth ventricle
 - (e) median eminence of the hypothalamus
22. Which is the largest branch of the internal carotid artery?
- (a) ophthalmic artery
 - (b) anterior cerebral artery
 - (c) middle cerebral artery
 - (d) striate artery
 - (e) posterior communicating artery
23. The brain stem does NOT include the:
- (a) diencephalons
 - (b) midbrain
 - (c) medulla oblongata
 - (d) pons
 - (e) substantia nigra
24. Which cranial nerve lies in the junction between pons and medulla?
- (a) abducent nerve (VI)

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- (b) facial nerve (VII)
- (c) vestibulocochlear nerve (VIII)
- (d) glossopharyngeal nerve (IX)
- (e) vagus nerve (X)

25. Which is the smallest cranial nerve?

- (a) olfactory nerve (I)
- (b) oculomotor nerve (III)
- (c) trochlear nerve (IV)
- (d) abducent nerve (VI)
- (e) accessory nerve (XI)

26. Which midbrain cells are involved in general light reflexes?

- (a) red nucleus
- (b) superior colliculus
- (c) inferior colliculus
- (d) substantia nigra
- (e) medial geniculate body

27. The medulla oblongata:

- (a) lies between the midbrain and pons
- (b) has only one cranial nerve emerging from it (the trigeminal nerve)
- (c) has pyramids lateral to the olives
- (d) passes through the foramen magnum
- (e) receives its blood supply from the internal carotid artery

28. Which structure does NOT receive supply from the oculomotor nerve?

- (a) medial rectus
- (b) ciliary body
- (c) levator palpebrae superioris
- (d) inferior oblique
- (e) lateral rectus

29. In central cord syndrome there is:

- (a) loss of movement and all sensation below the injured segment
- (b) paralysis and loss of touch sensation on one side and loss of pain and temperature sensation in the upper limbs and spasticity of the lower limbs
- (c) intact touch sensation with loss of all motor and other sensory functions
- (d) no loss of motor or sensory function

30. Which structure is encircled by the circle of Willis?

- (a) cavernous sinus
- (b) pineal gland
- (c) aqueduct of the midbrain
- (d) pituitary stalk
- (e) medulla

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (a) | 2. (d) | 3. (b) | 4. (c) | 5. (a) | 6. (c) |
| 7. (a) | 8. (b) | 9. (d) | 10. (c) | 11. (d) | 12. (c) |
| 13. (a) | 14. (a) | 15. (c) | 16. (b) | 17. (a) | 18. (b) |
| 19. (c) | 20. (b) | 21. (a) | 22. (c) | 23. (a) | 24. (a) |
| 25. (c) | 26. (b) | 27. (d) | 28. (e) | 29. (c) | 30. (d) |

□□

Chapter—9 Sensory Organs

1. Glands of Moll are modified

- (a) Oil glands
- (b) Tear glands
- (c) Sweet glands
- (d) Scent glands

2. The secretion of lachrymal gland is

- (a) Watery
- (b) Acidic
- (c) Oily
- (d) Alkaline

3. Sty is infection of

- (a) Gland of Zeis
- (b) Tarsal gland
- (c) Gland of Moll
- (d) Lachrymal gland

4. Macula lutea is a part of

- (a) Optic nerve
- (b) Sclerotic
- (c) Choroid
- (d) Retina

5. Lens in man is

- (a) Biconvex
- (b) Biconcave
- (c) Spherical
- (d) Cylindrical

6. The musculus tensor choroidea is

- (a) Another name of tela choroidea
- (b) Muscles surrounding the lens
- (c) Levator bulbi muscles
- (d) None of the above

7. The eye rotate in the orbit by
 - (a) 6 muscles
 - (b) 3 muscles
 - (c) 4 muscles
 - (d) 5 muscles
8. The eye ball protrudes from the orbit with the concentration of
 - (a) Retractor bulbi muscles
 - (b) Protractor lentis muscles
 - (c) Levator bulbi muscles
 - (d) None of the above
9. Colour to the eye is imparted by
 - (a) Lens
 - (b) Pupil
 - (c) Iris
 - (d) Vitreous humour
10. The size of pupil decreases due to the contraction of
 - (a) Radial muscles
 - (b) Circular muscles
 - (c) Both circular and radial muscles
 - (d) Nictitating membrane
11. The vision of man is
 - (a) Monocular
 - (b) Binocular
 - (c) Apposition
 - (d) None of the above
12. Eye muscles are attached with
 - (a) Sclerotic
 - (b) Cornea
 - (c) Choroid
 - (d) Retina
13. The visual purple is concerned with
 - (a) Bright light
 - (b) Dim light
 - (c) Moderate light
 - (d) Darkness
14. The visual violet is concerned with
 - (a) Bright light
 - (b) Dim light
 - (c) Moderate light
 - (d) Darkness
15. The colour differentiation is done by
 - (a) Rods
 - (b) Cones
 - (c) Bipolar nerve cells
 - (d) Pigmented epithelium
16. The tympanic membrane is stretched over a cartilaginous ring. It is
 - (a) Columella
 - (b) Fenestra ovalis
 - (c) Tympanicus annulus
 - (d) None of the above

17. The true sense of equilibrium is located in
 - (a) Utriculus
 - (b) Sacculus
 - (c) Semicircular ducts
 - (d) Cochlea
18. The membranous labyrinth is concerned with
 - (a) Hearing
 - (b) Equilibrium
 - (c) Both
 - (d) None of the above
19. The enlargement at one end of each semicircular canal is known as
 - (a) Lagena
 - (b) Utriculus
 - (c) Ampulla
 - (d) Sacculus
20. Which part of internal ear receives sound waves in man
 - (a) Cochlea
 - (b) Legena and utriculus
 - (c) Ampullae and utriculus
 - (d) None of the above
21. From the sacculus arises a narrow tube called
 - (a) Ductus endolymphaticus
 - (b) Endolymphatic sac
 - (c) Cochlea
 - (d) None of the above
22. Vascular coat of eye is
 - (a) Sclerotic
 - (b) Choroid
 - (c) Retina
 - (d) Nil
23. Scala tympani is the part of
 - (a) Internal ear
 - (b) Middle ear
 - (c) Endolymphatic sac
 - (d) Brain
24. Otoconia are
 - (a) Nerve fibres
 - (b) Ear stones
 - (c) Sensory hair
 - (d) None of the above
25. In man's eye, the sclerotic is made up of
 - (a) Bone
 - (b) Cartilage
 - (c) Muscles and cartilage
 - (d) Fibrous connective tissue
26. In mammalian eye, the power of accommodation is controlled by changing thickness of the lens, governed by
 - (a) Cornea
 - (b) Pupil
 - (c) Iris
 - (d) Ciliary body
27. Lacrimal glands are concerned with secretion of
 - (a) Hormones
 - (b) Digestive juices
 - (c) Enzymes
 - (d) Tears

28. The membranous labyrinth is concerned with
 - (a) Hearing
 - (b) Balancing
 - (c) Sound production
 - (d) Hearing and balancing
29. The receptor organs for sense of hearing are located in
 - (a) Cochlea
 - (b) Utriculus
 - (c) Sacculus
 - (d) Middle ear
30. If the light source is front of an eye becomes bright suddenly
 - (a) Focus of lens will change
 - (b) Retinal blood supply is cut
 - (c) Vitreous humour becomes fluid
 - (d) Pupil will contract
31. Animals perceiving coloured images are
 - (a) Primates
 - (b) Birds
 - (c) Lizards and snakes
 - (d) All the above
32. Visual purple is found in
 - (a) Cornea
 - (b) Cones
 - (c) Rods
 - (d) Retina
33. Tactile organs found at the hair roots are
 - (a) Basket nerve endings
 - (b) Free nerve endings
 - (c) Pacinian corpuscles
 - (d) Ruffini corpuscles
34. Pharynx is connected with tympanic cavity through
 - (a) Glottis
 - (b) Gullet
 - (c) Eustachian tubes
 - (d) Internal nares
35. The ear ossicle of man is
 - (a) Malleus
 - (b) Incus
 - (c) Stapes
 - (d) All the above

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (c) | 2. (a) | 3. (a) | 4. (d) | 5. (a) | 6. (b) |
| 7. (a) | 8. (c) | 9. (c) | 10. (b) | 11. (b) | 12. (a) |
| 13. (b) | 14. (a) | 15. (b) | 16. (c) | 17. (c) | 18. (c) |
| 19. (c) | 20. (a) | 21. (a) | 22. (b) | 23. (a) | 24. (b) |
| 25. (d) | 26. (d) | 27. (d) | 28. (d) | 29. (a) | 30. (d) |
| 31. (d) | 32. (c) | 33. (a) | 34. (c) | 35. (d) | |

Chapter—10

Digestive System

- 1. What is the digestive system?**
 - (a) The body's breathing system
 - (b) The body's system of nerves
 - (c) The body's food-processing system
 - (d) The body's blood-transporting system
- 2. Digestion begins in the mouth. Which of the following statement is INCORRECT?**
 - (a) The tongue aids in the digestion of the food.
 - (b) The saliva changes some of the starches in the food to sugar.
 - (c) The tongue keeps the food in place in the mouth while the food is being chewed.
 - (d) The digestive juices can react more easily with the food when chewed.
- 3. Where does food pass through between the mouth and the stomach?**

(a) The gullet	(b) The rectum
(c) The small intestine	(d) The large intestine
- 4. Our throat divides into two separate tubes: the windpipe and the gullet. What prevents food from entering the windpipe?**

(a) The uvula	(b) The tongue
(c) The trachea	(d) The epiglottis
- 5. What happens when food reaches the stomach?**
 - (a) Nothing. No digestion occurs in the stomach.
 - (b) The food moves quickly into the small intestine.
 - (c) Juices mix with the food and stomach muscles squeeze it.
 - (d) The food is completely digested and is absorbed by tiny blood vessels in the walls of the stomach.
- 6. Where does the partly-digested food (in liquid form) go after it leaves the stomach?**

(a) The gullet	(b) The appendix
(c) The small intestine	(d) The large intestine

7. **How does digested food finally reach the bloodstream?**
- (a) It passes through the gullet into the blood.
 - (b) It is absorbed into the blood through blood vessels.
 - (c) It is absorbed into the blood through the walls of the lungs.
 - (d) It passes from the small intestine into the large intestine, then into the blood.
8. **The digestive system processes food into usable and unusable materials. The usable materials are sent to the body's cells as food. What happens to unusable materials?**
- (a) It goes into the pancreas to await disposal.
 - (b) It goes to the right ventricle to await disposal.
 - (c) It goes into the large intestine to await disposal.
 - (d) It goes into the small intestine to await disposal.
9. **Solid waste leaves the body through the rectum then the anus. Liquid waste leaves the body after passing through the ...**
- (a) kidneys and bladder
 - (b) blood vessels and lungs
 - (c) large intestine and bowel
 - (d) small intestine and large intestine
10. **Digestion takes place in a long tube-like canal called the alimentary canal, or the digestive tract. Food travels through these organs in the following order:**
- (a) Mouth, gullet, stomach, small intestine, large intestine and rectum
 - (b) Mouth, oesophagus, stomach, large intestine, small intestine and rectum
 - (c) Mouth, stomach, oesophagus, small intestine, large intestine and rectum
 - (d) Mouth, stomach, gullet, small intestine, large intestine and rectum
11. **Which of the following does NOT manufacture digestive juices?**
- (a) Liver
 - (b) Kidneys
 - (c) Stomach
 - (d) Pancreas

- 12. The liver is located in the abdomen and performs many functions. Which of the following is NOT a function of the liver?**
- (a) Storing food
 - (b) Manufacturing insulin
 - (c) Producing digestive juices
 - (d) Healing itself when it is damaged
- 13. The function of tongue is to**
- (a) Help in the act of swallowing
 - (b) Help in mixing saliva with the food
 - (c) Help in speaking
 - (d) All the above
- 14. Fat digestion is facilitated by**
- (a) Bile juice
 - (b) Pancreatic juice
 - (c) Gastric juice
 - (d) None of these
- 15. The end product of fat digestion is**
- (a) Amino acids
 - (b) Starch
 - (c) Fatty acids
 - (d) Glucose
- 16. Inner lining of gut, stomach and liver is composed of**
- (a) Simple squamous epithelium
 - (b) Simple columnar epithelium
 - (c) Simple cuboidal epithelium
 - (d) Compound epithelium
- 17. A lubricant, mucin in saliva is made up of**
- (a) Glycoprotein
 - (b) Polysaccharides
 - (c) Phospholipids
 - (d) Myosin
- 18. During digestion the lymphatics of the intestine become filled with fat globules which give white colour to the lymph. This lymph is known as**
- (a) Chyle
 - (b) Haemoconia
 - (c) Fluid plasma
 - (d) Bilirubin
- 19. Submucosa is thickest in**
- (a) Stomach
 - (b) Oesophagus
 - (c) Intestine
 - (d) Rectum
- 20. Which of the following is not a human salivary gland?**
- (a) Parotid
 - (b) Submaxillary
 - (c) Sublingual
 - (d) Infra-orbital

21. Digestion is

- (a) Absorption of water
- (b) Absorption of food
- (c) Conversion of non-diffusible food particle in diffusible food particle
- (d) None of these

22. Animals eating own faecal matter are

- (a) Sanguivorous
- (b) Frugivorous
- (c) Coprophagous
- (d) Detritivorous

23. Which word best describes the action of bile on fats

- (a) Neutralises
- (b) Digests
- (c) Emulsifies
- (d) Absorbs

24. Digestion of protein is necessary due to

- (a) Proteins are not absorbed as such
- (b) Proteins are large molecules
- (c) Proteins have complex structure
- (d) Proteins are made up of amino acids

25. Removal of stomach causes

- (a) Dumping syndrome
- (b) Turner's syndrome
- (c) Emphysema
- (d) None of these

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (c) | 2. (a) | 3. (a) | 4. (d) | 5. (c) | 6. (c) |
| 7. (b) | 8. (c) | 9. (a) | 10. (a) | 11. (b) | 12. (b) |
| 13. (d) | 14. (a) | 15. (c) | 16. (b) | 17. (a) | 18. (a) |
| 19. (b) | 20. (d) | 21. (c) | 22. (c) | 23. (c) | 24. (a) |
| 25. (a) | | | | | |

Chapter—11

Endocrine System

1. Which of these is true of the endocrine system?
 - (a) secretes hormones that are transported to target cells by blood
 - (b) causes changes in metabolic activities
 - (c) effects are prolonged
 - (d) all of above are true.
2. Name the gland that is located at the base of the throat, just inferior to the laryngeal prominence (Adam's apple).
 - (a) pituitary.
 - (b) pineal gland.
 - (c) hypothalamus.
 - (d) thyroid.
3. What gland is located just superior to the kidneys?
 - (a) pituitary.
 - (b) adrenal.
 - (c) pancreas.
 - (d) ovaries
4. In the pancreas, which are the cells that secrete insulin, decrease the blood levels of glucose.
 - (a) delta.
 - (b) alpha.
 - (c) beta.
 - (d) beta.
5. The endocrine gland responsible for the body's circadian rhythm is the:
 - (a) thymus gland.
 - (b) pineal gland.
 - (c) parathyroid gland.
 - (d) pituitary gland.
6. Endocrine glands differ from exocrine glands in that:
 - (a) endocrine glands are ductless and exocrine glands release secretions at the body's surface or into ducts.
 - (b) endocrine glands release hormones, whereas exocrine glands release waste.
 - (c) endocrine glands are formed by epithelial tissue, but exocrine glands are primarily connective tissue.
 - (d) endocrine glands are all interconnected; whereas exocrine glands act completely independently.
7. Which of these is not an endocrine property?
 - (a) hormones reach targets through the blood

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- (b) effects are slow and cyclic
 - (c) rapid acting effects
 - (d) effects caused by chemicals.
- 8. The primary target of the releasing and inhibiting hormones of the hypothalamus is the:**
- (a) liver and adipose tissue
 - (b) gonads
 - (c) anterior pituitary
 - (d) bone marrow
- 9. Which of these is not an endocrine gland?**
- (a) pancreas.
 - (b) testes.
 - (c) salivary gland.
 - (d) parathyroid.
- 10. Which is not a function of the hypothalamus?**
- (a) affect heart rate
 - (b) control temperature
 - (c) affect water balance
 - (d) secrete fsh
- 11. Which if the following gland which can be classified as an endocrine and an exocrine gland?**
- (a) thyroid.
 - (b) thymus.
 - (c) pancreas.
 - (d) pituitary.
- 12. Which of these hormones is made by the posterior pituitary?**
- (a) fsh
 - (b) lh
 - (c) acth
 - (d) adh
- 13. Which gland controls basal metabolic rate (BMR)?**
- (a) thyroid.
 - (b) parathyroid.
 - (c) testes.
 - (d) pancreas.
- 14. How do hormones from the thyroid and parathyroid regulate the calcium concentration of the blood?**
- (a) calcitonin lowers blood calcium; parathyroid hormone raises blood calcium.
 - (b) parathyroid hormone lowers blood calcium; calcitonin raises blood calcium.
 - (c) thyroxine and triiodothyronine together regulate calcium levels, as needs dictate.
 - (d) both parathroid hormone and the three thyroid hormones function to regulate blood calcium levels.
- 15. The posterior pituitary stores and releases:**
- (a) growth hormone and prolactin.
 - (b) prolactin and oxytocin.

- (c) oxytocin and antidiuretic hormone (adh).
- (d) adh and growth hormone.
- 16. Which of the following hormones are responsible for the «fight-or-flight» response?
 - (a) epinephrine and norepinephrine.
 - (b) insulin and glucagon.
 - (c) estradiol and progesterone.
 - (d) thyroxine and melatonin.
- 17. The pituitary hormone that stimulates the male testes to produce sperm and stimulates the development of the follicle in the female on a monthly cycle is:
 - (a) growth hormone
 - (b) luteinizing hormone
 - (c) prolactin
 - (d) follicle-stimulating hormone
- 18. Which hormones of the adrenal glands supplement the sex hormones from the gonads?
 - (a) mineralocorticoids, such as aldosterone
 - (b) glucocorticoids, such as cortisol
 - (c) gonadocorticoids, such as the androgens
 - (d) epinephrine and norepinephrine.
- 19. The clusters of cells in the pancreas that produce hormones are the:
 - (a) nodules.
 - (b) islets of Langerhans.
 - (c) pancreatic medulla.
 - (d) pancreatic cortex.
- 20. The Glucagon is:
 - (a) accelerates the conversion of glycogen into glucose.
 - (b) slows down glucose formation from lactic acid.
 - (c) decreases the conversion of glycogen into glucose.
 - (d) speeds up protein synthesis within cells.
- 21. Most hormones of the endocrine system are regulated by a:
 - (a) negative feedback mechanism.
 - (b) positive feedback mechanism.
 - (c) hormone-receptor complex.
 - (d) hormone-gene complex.
- 22. Calcitonin is a hormone of which of the following:
 - (a) adrenal cortex.
 - (b) thyroid gland.
 - (c) pituitary gland.
 - (d) thymus gland.
 - (e) none of the above.

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- 23. Calcium level in the blood is regulated by the:**
(a) thyroid. (b) parathyroid.
(c) posterior pituitary. (d) adrenal medulla.
(e) a and b.
- 24. All of the following are hormones of the anterior pituitary except:**
(a) human growth hormone (gh).
(b) follicle-stimulating hormone (fsh).
(c) parathyroid hormone(pth).
(d) thyroid-stimulating hormone (tsh).
- 25. The secretions from which of these glands differs between males and females?**
(a) adrenal. (b) parathyroid.
(c) gonadal. (d) pancreas.
- 26. This hormone is responsible for “fight-or-flight” response**
(a) Thyroxine and melatonin
(b) insulin and glucagon
(c) epinephrine and norepinephrine
(d) oestrogen and progesterone
- 27. Difference between endocrine and exocrine glands is that**
(a) endocrine glands release hormones, exocrine glands release waste
(b) endocrine glands are interconnected, exocrine glands are totally independent
(c) endocrine glands are formed by epithelial tissue, exocrine glands are connective tissues primarily
(d) endocrine glands are ductless, exocrine glands release secretions into ducts or at the surface of the body
- 28. This hormone is not secreted by Hypothalamus**
(a) PRH (b) FSH
(c) CRH (d) TRH
- 29. This is the most abundant hormone produced by the anterior pituitary**
(a) LH (b) TSH
(c) ACTH (d) GH

30. This is not an endocrine gland

- (a) Adrenal
- (b) Pituitary
- (c) Lacrimal
- (d) Thyroid

Answers Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (d) | 2. (d) | 3. (b) | 4. (d) | 5. (b) | 6. (a) |
| 7. (c) | 8. (c) | 9. (c) | 10. (d) | 11. (c) | 12. (d) |
| 13. (a) | 14. (a) | 15. (c) | 16. (a) | 17. (d) | 18. (c) |
| 19. (b) | 20. (a) | 21. (a) | 22. (b) | 23. (e) | 24. (c) |
| 25. (c) | 26. (c) | 27. (d) | 28. (b) | 29. (d) | 30. (c) |



Chapter—12

Reproductive System

- 1. Sperm production begins in the**
 - (a) seminiferous tubules
 - (b) epididymis
 - (c) vas deferens
 - (d) ejaculatory duct
- 2. The cell produced by fertilization is called**
 - (a) gamete
 - (b) embryo
 - (c) fetus
 - (d) zygote
- 3. The production of testosterone in the interstitial cells is stimulated by**
 - (a) inhibin
 - (b) luteinizing hormone
 - (c) follicle-stimulating hormone
 - (d) progesterone
- 4. Sperm maturation occurs in the**
 - (a) seminiferous tubules
 - (b) epididymis
 - (c) vas deferens
 - (d) urethra
- 5. The layer of the uterine wall that is shed during menstruation is the**
 - (a) endometrium
 - (b) myometrium
 - (c) epimetrium
 - (d) none of the above

6. The external genitalia of the female are collectively called the
 - (a) labia
 - (b) vulva
 - (c) clitoris
 - (d) mons pubis
7. The hormone that works with estrogen to prepare the endometrium for implantation of a fertilized egg is
 - (a) LH
 - (b) FSH
 - (c) ADH
 - (d) progesterone
8. The average menstrual cycle is
 - (a) 14 days
 - (b) 18 days
 - (c) 24 days
 - (d) 28 days
9. The structure between the uterus and the vagina is the
 - (a) uterine tube
 - (b) cervix
 - (c) vulva
 - (d) hymen
10. The hormone that stimulates uterine contractions is
 - (a) oxytocin
 - (b) estrogen
 - (c) granular cell carcinoma
 - (d) progesterone
11. Which one of the followings causes the mammary glands to enlarge at puberty?
 - (a) Testosterone
 - (b) Progesterone
 - (c) Estrogen
 - (d) Oxytocin
12. What is the inner lining of the uterus called?
 - (a) Cervix
 - (b) Oviduct
 - (c) Endometrium
 - (d) Fimbriae
13. Where does fertilization usually take place?
 - (a) Cervix
 - (b) Vagina
 - (c) Uterus
 - (d) Oviduct
14. Which one of the followings regarding 'Estrogen' is correct?
 - (a) Causes the endometrium to rebuild
 - (b) Has no effect on the Wolffian duct
 - (c) Maintains the secondary sexual characteristics in female
 - (d) All of these
15. The process of sperm production takes place in the _____.
 - (a) Epididymis
 - (b) Vas deferens
 - (c) Prostate glands
 - (d) Seminiferous tubules

16. Which one of the followings secretes the gonadotropic hormones?
- (a) Adrenal
 - (b) Anterior pituitary
 - (c) Posterior pituitary
 - (d) Thyroid
17. The secretory phase in the human menstrual cycle is also called
- (a) Luteal phase and lasts for about 6 days
 - (b) Follicular phase lasting for about 6 days
 - (c) Luteal phase and lasts for about 13 days
 - (d) Follicular phase and lasts for about 13 days
18. Vasa efferentia are the ductules leading from
- (a) Epididymis to urethra
 - (b) Testicular lobules to rete testis
 - (c) Rete testis to vas deferens
 - (d) Vas deferens to epididymis
19. Which one of the followings is incorrectly matched regarding female reproductive organs?
- (a) Ovaries - eggs and sex hormones are produced
 - (b) Oviducts - serves as the site of fertilization
 - (c) Uterus - Serves as the birth canal
 - (d) Cervix - Contains opening to embryo/fetus
20. Which one of the followings is incorrectly matched regarding male reproductive organs?
- (a) Testes: Sperm and sex hormones are produced
 - (b) Epididymis: Ducts where sperm mature
 - (c) Prostate gland: Contributes fluid to semen
 - (d) Urethra: Contributes nutrients and mucus-containing fluid to semen
21. Which one of the following events occurs in luteal phase (or secretory phase) of the menstrual cycle?
- (a) Follicle-stimulating hormone (FSH) secretion begins
 - (b) Follicle maturation takes place
 - (c) Corpus luteum forms
 - (d) Endometrium breaks down
22. Where do the female gonads (paired ovaries) lie?
- (a) Pelvic cavity
 - (b) Thoracic cavity
 - (c) Abdominal cavity
 - (d) Scrotal sacs

- 23. Which one of the following statements about human sperm is correct?**
- (a) Acrosome serves no particular function
 - (b) Acrosome has a conical pointed structure used for piercing and penetrating the egg resulting in fertilization
 - (c) The sperm lysins in the acrosome dissolve the egg envelope facilitating fertilization
 - (d) Acrosome serves as a sensory structure leading the sperm towards the ovum
- 24. The testes in humans are situated outside the abdominal cavity inside a pouch called scrotum. The purpose served is for**
- (a) Providing a secondary sexual feature for exhibiting the male sex
 - (b) Maintaining the scrotal temperature lower than the internal body temperature
 - (c) Escaping any possible compression by the visceral organs
 - (d) Providing more space for the growth of epididymis
- 25. If for some reason, the vasa efferentia in the human reproductive system get blocked, the gametes will not be transported from**
- (a) Vagina to uterus
 - (b) Testes to epididymis
 - (c) Epididymis to vas deferens
 - (d) Ovary to uterus

Answer Keys

- | | | | | | |
|---------|---------|---------|---------|---------|---------|
| 1. (a) | 2. (d) | 3. (b) | 4. (b) | 5. (a) | 6. (b) |
| 7. (d) | 8. (d) | 9. (b) | 10. (a) | 11. (c) | 12. (c) |
| 13. (d) | 14. (d) | 15. (d) | 16. (b) | 17. (c) | 18. (c) |
| 19. (c) | 20. (d) | 21. (c) | 22. (a) | 23. (c) | 24. (b) |
| 25. (b) | | | | | |