Question Bank ( practical zoology) by Naz Shwan

The Cell

1. What is the basic unit of life?

A) Atom

B) Molecule

C) Cell

D) Tissue

Answer: C

2. Which type of cell is known for being unicellular?

A) Animal cells

B) Plant cells

C) Bacteria

D) Fungi

Answer: C

3. What is the role of mitochondria in a cell?

A) Protein synthesis

B) Energy production

C) Digestion of waste materials

D) Storage of genetic information

Answer: B

4. Which organelle is involved in the synthesis of proteins?

A) Lysosomes

B) Mitochondria

C) Ribosomes

D) Golgi complex

Answer: C

5. The fluid part of the cell that contains organelles is called:

A) Nucleus

B) Cytoplasm

C) Plasma membrane

D) Mitochondria

Answer: B

The Microscope

6. What is the purpose of the coarse adjustment knob on a microscope?

A) To increase magnification

B) To focus on low power objectives

C) To adjust the light intensity

D) To change the objective lens

Answer: B

7. Which part of the microscope holds the objective lenses?

A) Base

B) Arm

C) Stage

D) Nosepiece

Answer: D

8. What is the magnification power of a high dry lens?

A) 4X

B) 10X

C) 40X

D) 100X

Answer: C

9. The lens that is located at the superior end of the body tube is called:

A) Objective lens

B) Condenser lens

C) Iris diaphragm

D) Ocular eyepiece

Answer: D

10. What does "parfocal" mean in relation to microscopes?

A) The microscope can be focused with one hand

B) The microscope maintains focus when magnification changes

C) The microscope has multiple lenses

D) The microscope has an adjustable light source

Answer: B

Glandular Epithelial Tissue

11. Which type of gland secretes directly into the blood or lymph?

A) Exocrine gland

B) Endocrine gland

C) Mixed gland

D) Tubular gland

Answer: B

12. What type of exocrine gland is the sweat gland?

A) Simple tubular

B) Branched tubular

C) Simple coiled tubular

D) Alveolar

Answer: C

13. Which gland is an example of a mixed gland?

A) Salivary gland

B) Pancreas

C) Adrenal gland

D) Sweat gland

Answer: B

14. The glands that pass their secretion onto the surface of the body are called:

A) Endocrine glands

B) Exocrine glands

C) Mixed glands

D) Simple glands

Answer: B

Nervous System

15. Which part of the neuron receives incoming signals?

A) Axon

B) Dendrites

C) Myelin sheath

D) Synapse

Answer: B

16. The protective covering around the axon is called:

A) Cell body

B) Dendrite

C) Myelin sheath

D) Synapse

Answer: C

17. What is the main function of the nervous system?

A) To provide structure to the body

B) To regulate the body's responses to stimuli

C) To produce hormones

D) To generate energy

Answer: B

18. Collections of neuron cell bodies within the brain and spinal cord are called:

A) Ganglia

B) Tracts

C) Nuclei

D) Synapses

Answer: C

Muscular Tissue

19. Which type of muscle tissue is found in the walls of the heart?

A) Skeletal muscle

B) Smooth muscle

C) Cardiac muscle

D) Striated muscle

Answer: C

20. The muscle tissue that is involuntary and found in the digestive tract is:

A) Skeletal muscle

B) Smooth muscle

C) Cardiac muscle

D) Striated muscle

Answer: B

21. What is the function of the Golgi complex?

A) Energy production

B) Protein synthesis

C) Storage and synthesis of secretory granules

D) Digestion of waste materials

Answer: C

22. Which type of endoplasmic reticulum is involved in lipid and carbohydrate synthesis?

A) Rough ER

B) Smooth ER

C) Golgi complex

D) Lysosomes

Answer: B

23. What role do lysosomes play in a cell?

A) Energy production

B) Protein synthesis

C) Digestion of waste materials

D) Cell division

Answer: C

24. What is the centrosome’s role in the cell?

A) Protein synthesis

B) Energy production

C) Cell division

D) Storage of genetic information

Answer: C

25. What part of the cell contains the genetic material?

A) Cytoplasm

B) Nucleus

C) Plasma membrane

D) Lysosomes

Answer: B

The Microscope

26. What is the purpose of the iris diaphragm in a microscope?

A) To adjust the focus

B) To hold the slide

C) To increase or decrease the light on the specimen

D) To change the magnification

Answer: C

27. Which part of the microscope is used for fine focusing?

A) Coarse adjustment knob

B) Fine adjustment knob

C) Condenser

D) Objective lens

Answer: B

28. The eyepiece of a microscope is also known as:

A) Objective lens

B) Condenser

C) Ocular lens

D) Iris diaphragm

Answer: C

29. What is the typical magnification power of an oil immersion lens?

A) 4X

B) 10X

C) 40X

D) 100X

Answer: D

30. Which type of microscope uses visible light to create a magnified image of an object?

A) Electron microscope

B) Optical microscope

C) Scanning microscope

D) Fluorescence microscope

Answer: B

Glandular Epithelial Tissue

31. Which type of gland is a salivary gland?

A) Simple gland

B) Compound gland

C) Endocrine gland

D) Mixed gland

Answer: B

32. What type of gland is found in the skin of mammals and is branched alveolar?

A) Sebaceous gland

B) Sweat gland

C) Lacrimal gland

D) Mammary gland

Answer: A

33. Which gland passes its secretion directly into the lymph?

A) Exocrine gland

B) Endocrine gland

C) Simple gland

D) Compound gland

Answer: B

34. The mucous gland in the skin of a frog is an example of:

A) Simple tubular gland

B) Branched tubular gland

C) Simple alveolar gland

D) Branched alveolar gland

Answer: C

35. Which gland type has both tubular and alveolar structures?

A) Simple gland

B) Compound gland

C) Endocrine gland

D) Mixed gland

Answer: B

Nervous System

36. What is the point of contact between the axon of one neuron and the dendrite of another called?

A) Synapse

B) Axon terminal

C) Node of Ranvier

D) Myelin sheath

Answer: A

37. The fatlike sheath that insulates axons and speeds impulse transmission is called:

A) Myelin sheath

B) Dendrite

C) Synapse

D) Axon terminal

Answer: A

38. The collections of neuron cell bodies outside the brain and spinal cord are called:

A) Nuclei

B) Ganglia

C) Tracts

D) Synapses

Answer: B

39. What type of matter consists of tracts of axons with white myelin sheaths?

A) Gray matter

B) White matter

C) Nuclei

D) Ganglia

Answer: B

40. The part of the neuron that conducts outgoing signals is called:

A) Dendrite

B) Axon

C) Myelin sheath

D) Synapse

Answer: B

Muscular Tissue

41. Which muscle tissue type is voluntary and attached to the skeleton?

A) Skeletal muscle

B) Smooth muscle

C) Cardiac muscle

D) Involuntary muscle

Answer: A

42. The muscle fibers that are long, spindleshaped cells are found in:

A) Skeletal muscle

B) Smooth muscle

C) Cardiac muscle

D) Striated muscle

Answer: B

43. Which muscle tissue type has intercalated discs?

A) Skeletal muscle

B) Smooth muscle

C) Cardiac muscle

D) Striated muscle

Answer: C

44. The muscle fibers that show alternating dark and light bands are found in:

A) Skeletal muscle

B) Smooth muscle

C) Cardiac muscle

D) Involuntary muscle

Answer: A

45. Which muscle tissue type is found in the digestive tract?

A) Skeletal muscle

B) Smooth muscle

C) Cardiac muscle

D) Striated muscle

Answer: B

Stratified Epithelial Tissue

46. Which type of stratified epithelial tissue lines the esophagus?

A) Keratinized squamous epithelium

B) Nonkeratinized squamous epithelium

C) Stratified cuboidal epithelium

D) Transitional epithelial tissue

Answer: B

47. The tissue type that consists of two layers of cuboidal cells is called:

A) Stratified squamous epithelium

B) Stratified cuboidal epithelium

C) Stratified columnar epithelium

D) Transitional epithelial tissue

Answer: B

48. Which tissue type is found in the eye conjunctiva?

A) Stratified squamous epithelium

B) Stratified cuboidal epithelium

C) Stratified columnar epithelium

D) Transitional epithelial tissue

Answer: C

49. The transitional epithelial tissue is characterized by cells that vary between:

A) Stratified squamous and stratified cuboidal

B) Stratified columnar and stratified squamous

C) Stratified cuboidal and stratified columnar

D) Simple cuboidal and simple columnar

Answer: A

50. Which type of stratified epithelial tissue contains dead keratin material?

A) Nonkeratinized squamous epithelium

B) Keratinized squamous epithelium

C) Stratified cuboidal epithelium

D) Transitional epithelial tissue

Answer: B