



BIOLOGY

BOOKS - CENGAGE BIOLOGY (ENGLISH)

STRUCTURAL ORGANISATION IN ANIMALS

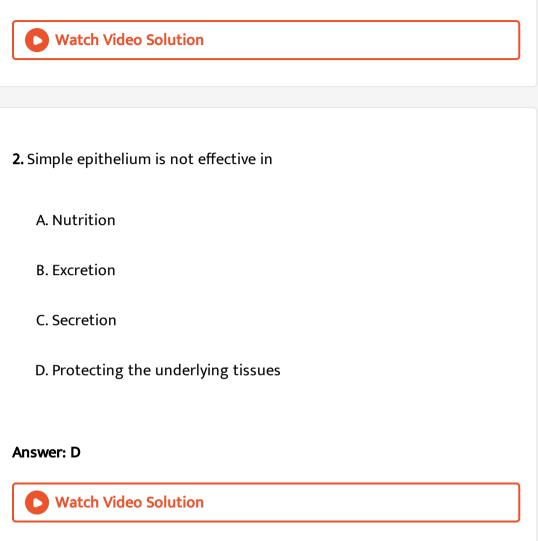
Exercise

- 1. Epithelial tissues lie on the basement membrane. It is made up of
 - A. Basal lamina composed of mucopolysaccharides and glycoproteins
 - secreted by epithelial cells
 - B. Fibrous lamina composed of collagen and reticular fibers of
 - underlying connective tissue

C. Both (1) and (2)

D. Cellular layer

Answer: C



3. Which type of the following tissues forms the inner lining of a blood vessel?

A. Cuboidal

B. Squamous

C. Columnar

D. Ciliated columnar

Answer: B

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4. Which of the following mammalian tissues is associated with filtration and diffusion?

A. Simple columnar

B. Simple squamous

C. Stratified squamous

D. Stratified columnar

Answer: B

5. Simple squamous epithelium lining the blood vessels is called

A. Mesothelium

B. Endothelium

C. Pavement epithelium

D. Tessellated epithelium

Answer: B

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6. Ciliated columnar epithelium called ependyma is present in the lining

of

A. Fallopian tubes

B. Ventricles of brain

C. Nasal passage

D. Bronchioles

Answer: B

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7. Brush border is characteristic of

A. Intestine

B. Proximal convoluted tubule

C. Stomach

D. Gall bladder

Answer: B

8. Ciliated epithelium is found in the lining of

A. Stomach

B. Trachea and bronchi

C. Duodenum

D. Ileum

Answer: B

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9. Germinal epithelium of overy is formed of

A. Columnar epithelium

B. Squamous epithelium

C. Cuboidal epithelium

D. Stratified epithelium

Answer: C

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10. All the statements about stereocilia are correct except

A. They are non-motile

B. These are found in epididymis and vas deferens

C. It has 9 + 2 ultra structure

D. The basal granule is absent

Answer: C

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11. Which of the following epithelia covers the inner linings of trachea, large bronchi, and helps to remove mucus?

- A. Ciliated columnar
- B. Pseudo-stratified epithelium
- C. Compound epithelium
- D. Cuboidal epithelium

Answer: B

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12. The epthelium found in the lining layer of stomach and intestine is

A. Columnar

- **B.** Squamous
- C. Stratified
- D. Pseudostratified

Answer: A

13. Adjacent epithelial cells are held together by desmosomes.

A. Liposomes

B. Liposomes

C. Desmosomes

D. Microsomes

Answer: C

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14. Pavement epithelium is the name of

A. Cuboidal epithelium

B. Squamous epithelium

C. Columnar epithelium

D. Ciliated epithelium

Answer: B



15. Conducting tissue is not found in

A. Urethra of male and parotid salivary gland

- B. Trachea and large bronchi
- C. Vas deferens and epididymis
- D. Buccopharyngeal cavity and oviduct

Answer: A



16. Stratified squamous non-keratinized epithelium is present in the lining

of

A. Buccal cavity, oesophagus, cornea of eye

B. Skin, hair, horn, nail

C. Small pancreatic ducts, thyroid follicles, ovary

D. Intestine, stomach, gall bladder

Answer: A

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17. Which of the following epithelia is much thinner and more stretchable than the stratified epithelium and covers the inner surface of urinary bladder and ureter?

A. Transitional

B. Compound

C. Simple

D. Stratified

Answer: A

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18. Which of the following cells are specialized for sensory functions, as

cells of taste bud?

A. Myoepithelial

B. Neuroepithelial

C. Cuboidal

D. Cornified

Answer: B

19. Cells of Peritoneum comprise : -

A. Ciliated epithelium

B. Columnar epithelium

C. Glandular epithelium

D. Squamous epithelium

Answer: D

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20. Which of the following match is incorrect ?

A. Holocrine-Sebaceous

B. Merocrine-Pancreas

C. Apocrine-Mammary glands

D. Eccrine (merocrine)-Mammary gland

Answer: D



21. Human mammary glands belong to one of the following types of glands

A. Simple alveolar

B. Coiled tubular

C. Compound tubule-alveolar

D. Simple tubular

Answer: C



22. Apocrine secretion of gland means

A. When the product is released but cell remains intact

B. When the entire contents of cell are discharged with the

destruction of the cell

C. When a part of apical cytoplasm is lost

D. None of these

Answer: C

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23. Which of the following tissues is present in maximum amount, joins differet tissues, forms the packing between them and helps to keep the organs in place and normal shape ?

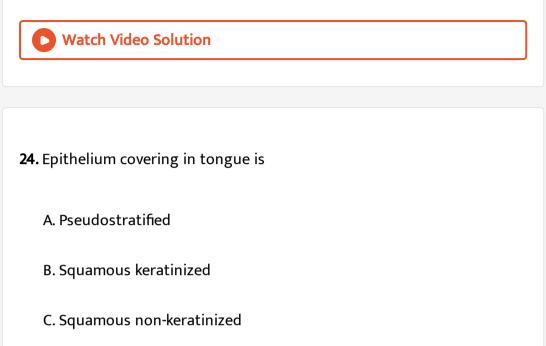
A. Areolar

B. Adipose

C. Tendon

D. Ligament

Answer: A



D. Simple cuboidal

Answer: C



25. Which of the following are principal cells of areolar connective tissue

and secrete maximum amount of matrix?

A. Macrophage

B. Mast

C. Fibroblast

D. Histiocyte

Answer: C

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26. Which one of the following contains the largest quantity of extracellular material ?

A. Striated muscle

B. Areolar tissue

C. Stratified epithelium

D. Myelinated nerve fibers

Answer: B

- 27. Mast cells occur in
 - A. Adipose tissue
 - B. Yellow fibrous tissue
 - C. Areolar tissue
 - D. White fibrous tissue

Answer: C

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28. Areolar tissue connects

- A. Muscles with muscles
- B. Bone with muscles
- C. Skin with muscles

D. Bone with bone

Answer: C



29. Heparin, histamine, and serotonin are secreted by

A. Lymphoid cells

B. Mast cells

C. Fibroblasts

D. Macrophages

Answer: B



30. Colloidal protein gelatin is obtained by boiling

A. Collagen

B. Elastin

C. Both (1) and (2)

D. None of these

Answer: A

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31. Fibers present in connective tissue are

A. Reticular

B. Elastic

C. Collagen

D. All of these

Answer: D

32. A new born baby has the cold-resisting device due to

A. Brown fat

B. Adipose fat

C. Fat rich in reticular tissue

D. None of these

Answer: A

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33. Which of the following tissues is present at the joints between skull

bones and makes them immovable?

A. Cartilage

B. White fibrous connective tissue

C. Ligament

D. Areolar

Answer: B



34. Nucleus pulposus occurs in

A. Intervertebral disc

B. Kidney

C. Testis

D. Cartilage

Answer: A



35. Which of the following tissues connects bones at joints and enables us to move and rotate our neck, limbs, and fingers comfortably

A. Tendon

B. Cartilage

C. Ligament

D. White fibrous cartilage

Answer: C

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36. Sprain is caused by

A. Excessive pulling of tendons

B. Excessive pulling of muscles

C. Excessive pulling of ligaments in which some fibers of supporting

ligaments are ruptured

D. Too much stretching and tearing of all ligaments

Answer: C



37. The connective tissue which mainly consists of yellow elastic fibers and

binds the bones together is known as

A. Ligament

B. Tendon

C. Reticular fibers

D. None of these

Answer: A

38. All the following statements are correct, except

- A. Hyaline cartilage lacks fibers and is present in ster- num, hyoid, and ribs.
- B. White fibrous cartilage is the strongest and is present in intervertebral discs.
- C. Elastic cartilage is present in the tip of nose and ear pinna.
- D. Calcified cartilage is not present in the pubis of pelvic girdle of frog

Answer: D

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39. Hyaline cartilage is found in

A. Eustachian tube, epiglottis, and pinna

B. Larynx, nasal septum, tracheal rings, and ribs

- C. Joints between vertebrae
- D. Between the rows of chondrocytes in lacunae

Answer: B

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40. Bone-forming cells which secrete ossein protein are called

A. Chondroblasts

B. Chondrocytes

C. Osteoblasts

D. Osteocytes

Answer: C

41. The bone matrix consists of

A. 65% inorganic matter and 35% organic matter

B. 30% inorganic matter and 70% organic matter

C. 60% inorganic matter and 40% organic matter

D. 40% inorganic matter and 60% organic matter

Answer: A

- 42. Protein present in cartilage is
 - A. Ossein
 - B. Chondrin
 - C. Myosin
 - D. Elastin

Answer: B



43. Which salt predominates in bone matrix

A. Sodium chloride

B. Magnesium phosphate

C. Calcium carbonate

D. Calcium phosphate

Answer: D

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44. A bone kept in dil HCl for three days shall

A. Breaks into pieces

- B. Becomes soft and elastic
- C. Dissolves
- D. Remains unchanged

Answer: B

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45. Transverse canal that joins longitudinal Haversian canals is known as

Volkmann's canal. It is a characteristic feature of the bone of

A. Frog

B. Fish

C. Toad

D. Rabbit

Answer: D

46. The bone of mammal contains longitudinal Haversian canals which are

connected by transverse canals , known as

A. Canaliculi

B. Volkmann's canal

C. Trabeculae

D. Bidder's canal

Answer: B

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47. Spongy or chancellors bone is present in vertebrae, ribs, skull, and epiphysis of long bones. They have

A. Haversian canals

B. Trabeculae

C. Red bone marrow

D. Both (2) and (3)

Answer: D

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48. RBCs of mammals are

A. Non-nucleated, biconcave and circular

B. Nucleated, biconvex, oval

C. Non-nucleated, biconvex, oval

D. Non-nucleated, biconvex, circular

Answer: A

49. Which of the following are incorrect?

A. Increase in RBC count is polycythemia.

B. Decrease in leukocyte count is called leukopenia.

C. Decrease in thrombocyte count is called thrombocy- topenia.

D. Purpura (a group of bleeding disorders) is due to in- crease in

platelet count.

Answer: D

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50. Which of the following precipitates Ca^{2+} ions and consequently prevents coagulation?

A. Heparin

B. Thrombin

C. Potassium oxalate/Sodium citrate

D. Antithrombin

Answer: C



51. Erythropoiesis in the fetus occurs in

A. Spleen

B. Liver

C. Both (1) and (2)

D. Bone marrow

Answer: C



52. Anemia is caused due to the deficiency of

A. Folic acid

B. Vitamin B_{12}

C. Hemoglobin

D. All of these

Answer: D

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53. An abnormal rise in RBC count can be found during exercise and at high altitude to cope with the oxygen demand is known as

A. Polycythemia

B. Thrombosis

C. Leukemia

D. Angina pectoris

Answer: A

54. Which of the following is not an anticoagulant?

A. Histamine

B. Hirudin

C. Heparin

D. Citrate

Answer: A

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55. Old RBCs are destroyed in "tissue macrophage system." In the breakdown of hemoglobin, bilirubin is formed from

A. Globin part

B. Porphyrin

C. Mainly from globin and a part from heme

D. Iron part

Answer: B

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56. Kidney-shaped nucleus occurs in

A. Neutrophils

B. Monocytes

C. Lymphocytes

D. Eosmophils

Answer: B

57. Which one of the following act as soldiers in human body?

A. Monocytes

B. Lymphocytes

C. Erythrocytes

D. All of these

Answer: A

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58. The maximum number of WBCs in the body is

A. Eosinophils

B. Basophils

C. Monocytes

D. Neutrophils

Answer: D



- 59. Cardiac muscles are
- (a) Striated, voluntary with syncytial condition
- (b) Unstriated, involuntary, uninucleated
- (c) Striated, involuntary with intercalated disc
- (d) Involuntary and unstriated
 - A. Striated, voluntary with syncytial condition
 - B. Unstriated, involuntary, uninucleated
 - C. Striated, involuntary with intercalated disc
 - D. Involuntary and unstriated

Answer: C

60. The oblique cross connections to form a con

tractile net work of fibres and the intercalated

discs are characteristically found in

A. Voluntary muscles

B. Cardiac muscles

C. Involuntary muscles

D. None of these

Answer: B

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61. Covering membrane around muscle fiber is known as

- (a) Neurilemrna
- (b) Plasmalemrna
- (c) Sarcolemma
- (d) Myolemma

A. Neurilemrna

B. Plasmalemrna

C. Sarcolemrna

D. Myolemma

Answer: C

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62. Long refractory period is present in

A. Smooth muscles

B. Cardiac muscles

C. Striated muscles

D. None of these

Answer: B

- 63. Arrector pili muscles are
- (a) Voluntary, multiunit
- (b) Involuntary, multiunit
- (c) Involuntary, single unit
- (d) Voluntary, single unit
 - A. Voluntary, multiunit
 - B. Involuntary, multiunit
 - C. Involuntary, single unit
 - D. Voluntary, single unit

Answer: B



64. Diapedesis means

A. Movement of the food in gut

B. Formation of WBCs

C. The process by which monocytes and neutrophils squeeze through

thin capillary wall

D. Formation of RB Cs

Answer: C

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65. Krause membrane or Z- line is a myofibril which separates two adjacent

A. A band or anisotropic band

B. Henson's line

C. I band or isotropic band

D. Sarcomere

Answer: C



66. Nissl granules are made up of

A. Ribosomes and RNA

B. DNA and proteins

C. Ribosomes and DNA

D. RNA, DNA, and proteins

Answer: A

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67. In the central nervous system, the myelin sheath around the nerve

fiber is formed by the spiral wrapping of

(a) Neurilemma

- (b) Schwann cells
- (c) Oligodendrocytes
- (d) Neurolemmocytes
 - A. Neurilemma
 - B. Schwann cells
 - C. Oligodendrocytes
 - D. Neurolemmocytes

Answer: C

- 68. Blood brain barrier is formed by
- (a) Astrocytes
- (b) Oligodendrocytes
- (c) Glial cells
- (d) Microglial cells

A. Astrocytes

- B. Oligodendrocytes
- C. Glial cells
- D. Microglial cells

Answer: A

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69. Neuroglia cell consists of packing cells and occur in

- (a) Brain
- (b) Spinal cord
- (c) Ganglia
- (d) All of these
 - A. Brain
 - B. Spinal cord
 - C. Ganglia

D. All of these

Answer: D



70. A nerve is a bundle of

A. Ganglia

B. Dendrites

C. Synapse

D. Axons

Answer: D

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71. Compound squamous epithelium occurs in

A. Stomach

B. Pharynx

C. Intestine

D. Trachea

Answer: B

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72. Epithelial tissue is

A. Protective covering

B. Reproductive structure

C. Nerve cells

D. Corpuscles

Answer: A



73. The epithelium of respiratory bronchioles is : –

- (a) Simple cuboidal
- (b) Pseudostratified columnar
- (c) Simple squamous
- (d) Pseudostratified sensory
 - A. Simple cuboidal
 - B. Pseudostratified columnar
 - C. Simple squamous
 - D. Pseudostratified sensory

Answer: C



74. Stratified and non-keratinised squamous epithelium occurs in

(a) Epidermis of skin

- (b) Vagina and cervix
- (c) Buccal cavity
- (d) Both b and c
 - A. Epidermis of skin
 - B. Vagina and cervix
 - C. Buccal cavity
 - D. Both (2) and (3)

Answer: D

- 75. Inner lining of gut, stomach and liver is made of
- (a) Simple squamous epithelium
- (b) Simple columnar epithelium
- (c) Simple cuboidal epithelium
- (d) All the above

- A. Simple squamous epithelium
- B. Simple columnar epithelium
- C. Simple cuboidal epithelium
- D. All the above

Answer: B



- 76. Gastric glands are
- (a) Simple tubular
- (b) Simple coiled tubular
- (c) Branched tubular
- (d) Compound tubular
 - A. Simple tubular
 - B. Simple coiled tubular
 - C. Branched tubular

D. Branched tubular

Answer: C



- 77. Regeneration after injury is absent in
- (a) Nervous tissue
- (b) Skin epidermis
- (c) Tendon
- (d) Smooth muscles
 - A. Nervous tissue
 - B. Skin epidermis
 - C. Tendon
 - D. Smooth muscles

Answer: A



78. Adjacent epithelial cells are held together by means of

- (a) Liposomes
- (b) Glyoxisomes
- (c) Desmosomes
- (d) Microsomes
 - A. Liposomes
 - **B.** Glyoxisomes
 - C. Desmosomes
 - D. Microsomes

Answer: C



79. Vertebrate salivary glands and exocrine part of pancreas are

(a) Apocrine

- (b) Holocrine
- (c) Epicrine
- (d) Merocrine
 - A. Apocrine
 - B. Holocrine
 - C. Epicrine
 - D. Merocrine

Answer: D

- 80. Mucus cells (Goblet cells) :-
- (a) Unicellular glands
- (b) Multicellular glands
- (c) Loosely arranged cells
- (d) Dead keratinized cells

A. Unicellular glands

- B. Multicellular glands
- C. Loosely arranged cells
- D. Dead keratinized cells

Answer: A



81. Squamous epithelium occurs in inner lining of

- (a) Kidney
- (b) Pancreatic duct
- (c) Lung alveoli
- (d) Liver

A. Kidney

- **B.** Pancreatic duct
- C. Lung alveoli

D. Liver

Answer: C



- 82. Characteristic of epithelial tissues is
- (a) Never produce glands
- (b) Cells can undergo rapid divisions
- (c) Abundant vascularization
- (d) Large intercellular spaces
 - A. Never produce glands
 - B. Cells can undergo rapid divisions
 - C. Abundant vascularization
 - D. Large intercellular spaces

Answer: B

83. Blood platelets are present in the blood of

(a) Birds

(b) Reptiles

(c) Mammals

(d) Amphibians

A. Birds

B. Reptiles

C. Mammals

D. Amphibians

Answer: C

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84. Ligament connects

(a) Bone to bone

- (b) Bone to muscle
- (c) Muscle to muscle
- (d) Both b and c
 - A. Bone to bone
 - B. Bone to muscle
 - C. Muscle to muscle
 - D. Both (B) and (C)

Answer: A

- 85. Mammary glands are modified
- (a) Sweat gland
- (b) Sebaceous gland
- (c) Lacrymal gland
- (d) Endocrine gland

A. Sweat gland

- B. Sebaceous gland
- C. Lacrymal gland
- D. Endocrine gland

Answer: A



- 86. The term hematocrit means
- (a) The percentage of blood having red blood cells
- (b) The ratio of blood volume to extracellular space
- (c) The percentage of new blood cells formed every 120 days
- (d) The percentage of blood having white blood cells
 - A. The percentage of blood having red blood cells
 - B. The ratio of blood volume to extracellular space
 - C. The percentage of new blood cells formed every 120 days

D. The percentage of blood having white blood cells

Answer: A



87. What is the main difference in humen and

frog RBC ?

A. Human RBCs are non-nucleated.

B. Hemoglobin is found only in human RBCs.

C. Human RBCs have nucleus.

D. Human RBCs are multinucleated.

Answer: A

- 88. Prothrombin is found in-
- (a) Intestine and helps in cellulose digestion
- (b) Liver and helps in the production of bile
- (c) Blood and gives red color
- (d) Blood and helps in blood clotting

A. Intestine and helps in cellulose digestion

- B. Liver and helps in the production of bile
- C. Blood and gives red color
- D. Blood and helps in blood clotting

Answer: D



89. Which type of WBCs are most abundant in the blood of rabbit and

other vertebrates?

(a) Acidophils

- (b) Basophils
- (c) Lymphocytes
- (d) Neutrophils
 - A. Acidophils
 - **B.** Basophils
 - C. Lymphocytes
 - D. Neutrophils

Answer: D

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90. Blood clotting can be prevented in a test tube by adding a little

- (a) Sodium oxalate
- (b) Sodium chloride
- (c) Sodium hydroxide
- (d) Ammonium chloride

A. Sodium oxalate

B. Sodium chloride

C. Sodium hydroxide

D. Ammonium chloride

Answer: A

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91. Oval, biconvex and nucleated RBC's are found in

(a) Camel

(b) Rabbit

(c) Man

(d) Rat

A. Cemal

B. Rabbit

C. Man

D. Rat

Answer: A



92. Which of the following is an anticoagulant

and checks blood coagulation in blood vessels ?

A. Prothrombin

B. Globulin

C. Thromboplastin

D. Heparin

Answer: D

93. In normal healthy female, the number of

 $RBrac{C}{m}m^3$ of blood is

A. 6.5-7.0 million

B. 5.5-6.0 million

C. 4.5-5.0 million

D. 3.5-4.0 million

Answer: C

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94. Tissue which form the basic structure of lymphoid organs such as

spleen is :

(a) Lymphoid tissue

- (b) Cartilage tissue
- (c) Elastic tissue
- (d) Areolar tissue

A. Lymphoid tissue

B. Cartilage tissue

C. Elastic tissue

D. Areolar tissue

Answer: A

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95. Which of the following should be avoided in biological marriages ?

- (a) A+ boy and A+ girl
- (b) A+ boy and A- girl
- (c) O+ boy and O+ girl
- (d) O-boy and O- girl

A. A+ boy and A+ girl

B. A+ boy and A- girl

C. O+ boy and O+ girl

D. O-boy and O- girl

Answer: B



96. After examining the blood group of husband and wife, the doctor advised them not to have more than one child, the blood group of the couple are likely to be:

- (a) Male Rh- and male Rh+
- (b) Female Rh- and male Rh+
- (c) Male Rh+ and female Rh+
- (d) Male Rh- and female Rh-
 - A. Male Rh- and male Rh+
 - B. Female Rh- and male Rh+
 - C. Male Rh+ and female Rh+
 - D. Male Rh- and female Rh-

Answer: B

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97. Blood colloidal osmotic pressure mainly maintained by which plasma

protein

A. (a) Albumin

B. (b) Globulin

C. (c) Fibrinogen

D. (d) Thrombin

Answer: A

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98. Haversian canal is situated in

- A. Glandular connective tissue
- B. Skeletal connective tissue
- C. Fibrous connective tissue
- D. Nervous tissue

Answer: B

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99. Histamine is secreted by

A. Neutrophils

B. Basophils

C. Leukocytes

D. Monocytes

Answer: B



100. Which of the following is an agranulocyte ?

A. Neutrophil

B. Eosinophil

C. Basophil

D. Monocyte

Answer: D

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101. Stratified squamous epithelium is found in :

A. Pharynx

B. Trachea

C. lleum

D. Bowman's capsule

Answer: A



102. During the process of blood coagulation, vitamin K helps in

A. (a) Formation of thromboplastin

- B. (b) Formation of prothrombin
- C. (c) Conversion of prothrombin to thrombin
- D. (d) Conversion of fibrinogen to fibrin

Answer: B



103. In mature RBC, nucleus is present in

A. (a) Frog

B. (b) Rabbit

C. (c) Both (a) and (b)

D. (d) Neither in frog nor in rabbit

Answer: A

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104. ABO blood group system is given by

A. (a) Landsteiner

B. (b) Wallace

C. (c) Hugo de Vries

D. (d) Lamarck

Answer: A



105. Which of the following , does not help in clotting of blood ?

A. (a) Heparin

- B. (b) Prothrombin
- C. (c) Ca^{2+}
- D. (d) exposure to O_2

Answer: A

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106. Collagen fibres are secreted by

A. Mast cells

B. Macrophage

C. Histiocytes

D. Fibroblasts

Answer: D

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107. Haversian canal is found in the bone of :

A. Mammals

B. Reptiles

C. Aves

D. Pisces

Answer: A

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108. Haematocrit value gives :

A. Amount of RBC in blood

- B. Number of WBC in blood
- C. Amount of plasma in blood
- D. Hemoglobin concentration in blood

Answer: A

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109. Universal blood recipient is

A. Blood group O

B. Blood group AB

C. Blood group A

D. Blood group B

Answer: B

110. Ligament is mainly formed by

A. Reticulin

B. Elastin

C. Myosin

D. Collagen

Answer: B

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111. Which is a sesamoid bone ?

A. Patella

B. Femur

C. Ulna

D. Pterygoid

Answer: A



112. Mammary glands are modified

A. Sweat glands

B. Sebaceous glands

C. Cutaneous glands

D. Scent glands

Answer: A



113. Anemia disease is caused by

A. (a) Deficiency of Fe

B. (b) Deficiency of Na

C. (c) Deficiency of Ca

D. (d) Deficiency of Mg

Answer: A

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114. The main function of ligament is :

A. (a) Joining of two bones

B. (b) Joining of muscles

C. (c) Joining of muscle to bone

D. (d) Joining of muscle to nerves

Answer: A

115. The following are needed for blood -clotting in mammals

- A. $Ca^{+\,+}$ and vitamin E
- B. $Ca^{+\,+}$ and vitamin K
- C. $Ca^{+\,+}$ and vitamin A
- D. K^+ and vitamin K

Answer: B

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116. The type of epithelium found in conjunctiva of eye is

A. (a) Stratified cuboidal

- B. (b) Stratified columnar
- C. (c) Stratified squamous

D. (d) Transitional epithelium

Answer: A



117. Haversian canals are found in the :

A. Bones of birds

B. Bones of mammals

C. Bones of frog

D. Cartilage

Answer: B



118. One of the following is not found in the red blood corpuscles of human being

A. Haemoglobin

B. Plasmalemma

C. Nucleus

D. Cytoplasm

Answer: C

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119. Average life span of human RBC is

A. 120 days

B. 90 days

C. 2-3days

D. 20 days

Answer: A



120. Volkmann canals are found in

A. (a) Bones of birds

B. (b) Bones of amphibians

C. (c) Bones of mammals

D. (d) Cartilage of mammals

Answer: C



121. An example of merocrine gland is

A. (a) Sebaceous gland

B. (b) Pineal gland

C. (c) Salivary gland

D. (d) Mammary gland

Answer: C

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122. Bone formed by the ossification of a tendon is called

A. Membrane bone

B. Sesamoid bone

C. Dermal bone

D. Cartilage

Answer: B

123. Epithelial tissue are arise from :

A. Ectoderm

B. Endoderm

C. Mesoderm

D. All the above

Answer: D

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124. The percentage of Hb in RBC is :

A. 0.48

B. 0.34

C. 0.1

D. 0.2

Answer: B



125. White adipose tissue contains :

A. Multilocular fat cells

B. Bilocular fat cells

C. Unilocular fat cells

D. Alocular fat cells

Answer: C

Watch Video Solution

126. In human fibrous cartilage is found abundantly

A. (a) Hyaline cartilage of joints

B. (b) Nostrils

C. (c) Intervertebral discs

D. (d) External ear

Answer: C

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127. Which of the following is enucleated

A. (a) Squamous epithelial cell

B. (b) Mature human erythrocyte

C. (c) Mature human leukocyte

D. (d) Mature frog erythrocyte

Answer: B

128. Which one of the following anticoagulant is added in blood during

storage ?

A. Sodium carbonate

B. Sodium oxalate

C. Sodmm chloride

D. Sodium hydroxide

Answer: B

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129. Blood clotting requires

- A. Na^+ and K^+
- B. Na^+ and Prothrombin

C. Na^+ and thromboplastin

D. Ca^+ and thromboplastin

Answer: D



130. Mammalian pinna is supported by

A. Hyaline cartilage

B. Calcified cartilage

C. Elastic cartilage

D. White fibrous connective tissue

Answer: C



131. Bone marrow takes part in

A. (a) Controlling blood pressure

- B. (b) As hemopoietic tissue
- C. (c) Assisting kidneys
- D. (d) Assisting liver

Answer: B

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132. Agranulocytes are

- A. (a) Eosinophils and neutrophils
- B. (b) Monocytes and lymphocytes
- C. (c) Eosinophils and lymphocytes
- D. (d) Lymphocytes and basophils

Answer: B

133. Platelets are a source of

A. Fibrinoge

B. Calcium

C. Thromboplastin

D. Hemoglobin

Answer: B

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134. Which is unrelated to blood coagulation ?

A. Fibrinogen

B. Fibrin

C. Bilirubin

D. Calcium

Answer: C

Watch Video Solution

135. Major component of blood plasma is

A. Water

B. Inorganic Substances

C. Organic substances

D. Blood cells

Answer: A

Watch Video Solution

136. Connective tissue belongs to

A. Ectoderm

B. Mesoderm

C. Endoderm

D. Any of the above

Answer: B

Watch Video Solution

137. Which one is unrelated ?

A. Keratin

B. Elastin

C. Dextrin

D. Collagen

Answer: C

138. Thromboplastin required for blood clotting is produced by

A. (a) Platelets

B. (b) Erythrocytes

C. (c) Monocytes

D. (d) Lymphocytes

Answer: A

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139. Maximum number of white blood corpuscles is that of

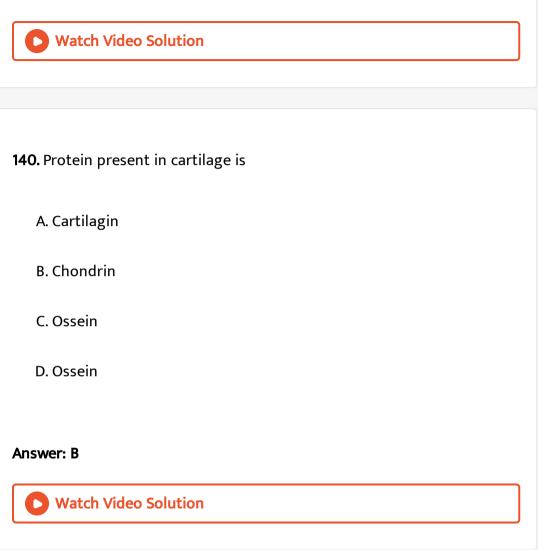
A. Basophils

B. Neutrophils

C. Monocytes

D. Eosinophils

Answer: B



141. Which of the following are involved in body defence ?

A. (a) Neutrophils

B. (b) Lymphocytes

C. (c) Macrophages

D. (d) All of the above

Answer: D

Watch Video Solution

142. Largest corpuscles of mammalian blood are

A. Erythrocytes

B. Monocytes

C. Lymphocytes

D. Basophils

Answer: B

143. Heparin is formed by

A. (a) Liver cells

B. (b) Plasma cells

C. (c) Blood cells

D. (d) Spleen cells

Answer: A

Watch Video Solution

144. Prothrombin , albumin and fibrinogen are synthesised by

A. Pancreas

B. Bone marrow

C. Spleen

D. Liver

Answer: D



145. Mast cells occur in

A. Connective tissue

B. Epithelial tissue

C. Skeletal tissue

D. Nervous tissue

Answer: A

Watch Video Solution

146. Ground substance of connective tissue is formed of

A. Phospholipids

B. Lipids

C. Monosaccharides

D. Mucopolysaccharides

Answer: D

Watch Video Solution

147. Ends of long bones are covered with

A. Blood cells

B. Ligaments

C. Muscles

D. Cartilage

Answer: D

148. Erythrocytes of adult mammals are formed in

A. Spleen

B. Liver

C. Bone marrow

D. Kidney

Answer: C

Watch Video Solution

149. Blood leukocytes are

A. Epithelial

B. Endothelial

C. Glandular

D. Connective

Answer: D



150. Antibodies are:

A. Albumins

B. Gamma-globulins

C. Sucrose

D. Vitamin C

Answer: B

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151. In which state iron is present in haemoglobin.

A. Anionic

 $\mathsf{B.}\,Fe^{2\,+}$

C. Fe^{3+}

D. None of these

Answer: B

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152. The cavities of brain are lined by

A. Cuboidal cells

B. Polygonal cells

C. Ependymal cells

D. Simple squamous cells

Answer: C

153. Immature RBCs of mammals have

A. No nucleus

B. Single beaded nucleus

C. Many nuclei

D. Single nucleus

Answer: A

Watch Video Solution

154. Megakaryocytes

A. Produce leukocytes

B. Forms blood platelets

C. Are carriers of oxygen

D. Are carriers of oxygen

Answer: B



155. During blood clotting, fibrin is produced by

A. Thrombokinase

B. Prothrombin

C. Liver

D. Proteolysis

Answer: B

Watch Video Solution

156. Which cartilage is present in trachea, larynx and bronchi?

A. Fibrous

B. Elastic

C. Hyaline

D. Calcified

Answer: C

Watch Video Solution

157. Number of erythrocytes per mm^3 of human blood is

A. 4 million

B. 5 million

C. 6 million

D. 0.5 million

Answer: B

158. Number of WBCs per mm^3 of human blood is ideally

A. 8000

B. 7000

C. 6500

D. 6000

Answer: A

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159. RBCs are nucleated in

A. Man

B. Rabbit

C. Rat

D. Frog

Answer: D



160. Cartilage is

A. Non-vascular

B. Poorly vascular

C. Highly vascular

D. Irregularly vascular

Answer: A

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161. An anticoagulant is

A. Heparin

B. Hirudin

C. EDTA

D. All the above

Answer: D

Watch Video Solution

162. Collagen and elastin are formed by

A. Macrophages

B. Fibroblasts

C. Mast cells

D. Chondrocytes

Answer: B

163. The rarest leucocyte of human blood is

A. Basophil

B. Monocyte

C. Neutrophil

D. Eosinophil

Answer: A

Watch Video Solution

164. Blood plasma has a pH of

A. 7.4

B. 7.8

C. 6.9

D. 6.3

Answer: A



165. In camal, erythrocytes are

- A. Oval and nucleated
- B. Circular, biconcave and nucleated
- C. Circular, biconcave and non-nucleated
- D. Oval and non-nucleated

Answer: A



166. Bilirubin and biliverdin are derived from

A. Globulin

B. Heme

C. Iron

D. Fat

Answer: A

Watch Video Solution

167. Which one of the following plasma proteins is involved in coagulation

of blood ?

A. Hemoglobin

B. Globulin

C. Fibrinogen

D. Albumin

Answer: C

168. Globulin is

A. Plasma protein

B. Antigen

C. Serum

D. Found in lymphatic tissue

Answer: A

Watch Video Solution

169. Which is not a component of areolar tissue ?

A. Macrophage

B. Plasma cell

C. Schwann cell

D. Adipose cell

Answer: C Watch Video Solution 170. Structure absent from fresh frozen blood plasma is A. Immunoglobulin B. Plasma C. Albumin D. Platelets Answer: D

Watch Video Solution

171. To prevent clotting , donor's blood is treated with

A. Sodium glycocholate

B. Sodium citrate

C. Heparin

D. Sodium taurocholate

Answer: B

Watch Video Solution

172. Bones are mainly formed by

A. Calcium and magnesium

B. Calcium and phosphorus

C. Calcium and sulfur

D. Calcium and iron

Answer: B

173. Abnormal increase in number of RBC in blood is called

A. Anemia

B. Polycythemia

C. Leukemia

D. Sarcoma

Answer: B

Watch Video Solution

174. Liquid which remain after clotting of blood is called as : -

A. Serum

B. Plasma

C. Lymph

D. Blood

Answer: A



175. Basement membrane is made up of

A. Epidermal cells

B. Endodermal cells

C. Both (1) and (2)

D. None of the above but present below epithelial cells

Answer: D

Watch Video Solution

176. Life span of human white blood corpuscles is

B. Less than 10 days

C. 120 days

D. 100 h

Answer: B

Watch Video Solution

177. Which of the following is not a granulocyte

A. Lymphocyte

B. Basophil

C. Neutrophil

D. Eosinophil

Answer: A

178. Regeneration of cartilage can occur from its

A. Matrix

B. Plasma

C. Perichondrium

D. A piece without perichondrium

Answer: C

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179. Matrix of hyaline cartilage contains

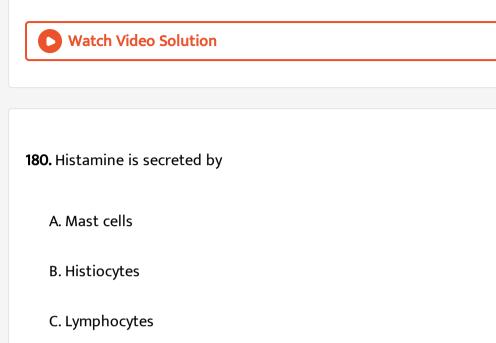
A. Collangen

B. Chondrin

C. Ossein

D. All the above

Answer: B



D. Fibroblasts

Answer: A

Watch Video Solution

181. One of the factors required for the maturation of erythrocytes is

A. Vitamin B_{12}

B. Vitamin A

C. Vitamin D

D. Vitamin C

Answer: A

Watch Video Solution

182. White fibrous tissue is

A. Nervous

B. Muscular

C. Ligaments

D. Tendons

Answer: D

183. Loose connective tissue is

A. Areolar

B. Adipose

C. Blood

D. Cartilage

Answer: A

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184. Ligament is a

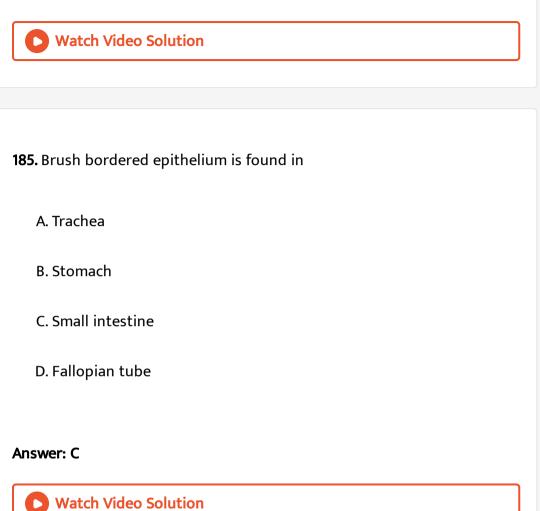
A. Modified white fibrous tissue

B. Inelastic white fibrous tissue

C. Modified elastic connective tissue

D. None of these

Answer: B



186. Simple epithelium is made of

A. Non-cellular layer of hyaluronic acid

B. Actively dividing cells

C. Loosely arranged cells

D. Compactly packed single layer of cells.

Answer: D

Watch Video Solution

187. Sebaceous glands are

A. Apocrine

B. Holocrine

C. Mesocrine

D. Epicrine

Answer: A

188. Ends of the long bones are covered by

A. Cartilage

B. Muscles

C. Ligaments

D. Tendons

Answer: C

Watch Video Solution

189. During an injury nasal septum gets damaged and for its recovery

which cartilage is preferred ?

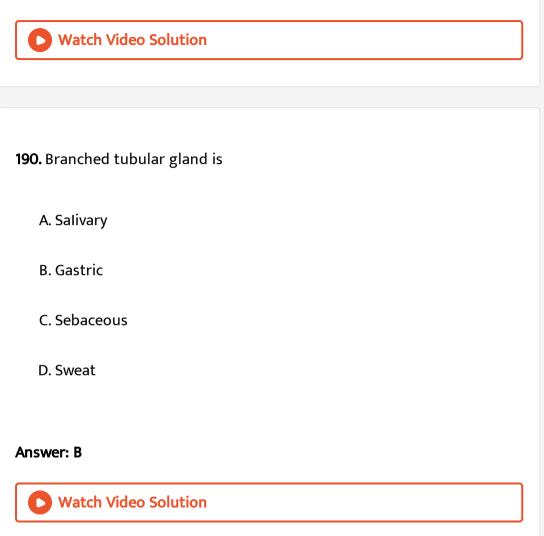
A. Fibrous cartilage

B. Elastic cartilage

C. Hyaline cartilage

D. Calcified cartilage

Answer: C



191. Which cartilage is present at the end of long bones?

A. Calcified cartilage

B. Hyaline cartilage

C. Elastic cartilage

D. Fibrous cartilage

Answer: B

Watch Video Solution

192. Continuous bleeding from an injured part of body is due to deficiency

of

A. Vitamin A

B. Vitamin B

C. Vitamin K

D. Vitamin E

Answer: C

193. What will happan if ligaments are cut or broken ?

A. Bones wi II move freely at joints

B. No movement at joint

C. Bone will become unfix

D. Bone will become fixed

Answer: C

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194. Which one of the following contains the largest quantity of extracellular material ?

A. Striated muscle

B. Areolar tissue

C. Stratified epithelium

D. Myelinated nerve fibers

Answer: B



195. Four healthy people in their twenties got involved in injuries resulting in damage and death of a few cells of the following. Which of the cells are least likely to be replaced by new cells?

A. Osteocytes

B. Liver cells

C. Neurons

D. Malpighian layer of the skin

Answer: C

196. Which of the following substance , if introduced into the blood stream, would cause coagulation of blood at the site of its introduction

A. Thromboplastin

B. Fibrinogen

C. Heparin

D. Prothrombin

Answer: A

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197. Examination of blood of a person suspected of having anaemia, shows large, immature, nucleated erythrocytes without haemoglobin. Supplementing his diet with which of the following, is likely to alleviate his symptoms ?

A. Thiamine

B. Folic acid and cobalamine

C. Riboflavin

D. Iron compounds

Answer: B

Watch Video Solution

198. A drop of each of the following is placed separately on four slides .

Which of them will not coagulate ?

A. Whole blood from pulmonary vein

B. Blood plasma

C. Blood serum

D. Sample from the thoracic duct of lymphatic system

Answer: C

199. Assertion: Cardiac muscles have striations and fiber is nucleated and involuntary.

Reason: Intercalated disc form the three-dimensional network of cardiac muscle fiber.

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C



200. Assertion: Multipolar neurons have several efferent processes.

Reason: Axons are the afferent processes of a neuron.

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

- C. If Assertion is true, but Reason is false.
- D. If both Assertion and Reason are false.

Answer: D

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201. Assertion: Blood circulation is absent in epithelium tissue.

Reason: Blood vessels are unable to pierce basement membrane.

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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202. Assertion : Reticular fibrous connective Tissue is called as embryonic tissue.

Reason : Reticular fibrous connective tissue is mainly found in embryonic stage.

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

Watch Video Solution

203. Assertion : Epithelia are highly regenerative.

Reason : When epithelia gets damaged they regenerate more repidly then other Tissue.

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.



204. [A] : Blood platelets play a very important role in coagulation of blood.

[R]: When blood is shed, the platelets disin- tegrate and liberate thromboplastin which activates prothrombin into thrombin.

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

- C. If Assertion is true, but Reason is false.
- D. If both Assertion and Reason are false.

Answer: A

205. Assertion : Brown fat produces more energy.

Reason : Brown fat composed of monolocular Adipocyte.

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C



206. Assertion : Simple cuboidal epithelium is also called as germinal

epithelium

Reason : Cuboidal cells of gonads forms gametes

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

Watch Video Solution

207. Assertion: Heparin is an anticoagulant found in mammals.

Reason: Heparin prevents the conversion of prothrombin to thrombin

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

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208. Assertion : Epithelium cells get their nutrients from Adjacent cells .

Reason : In epithelium tissue large intercellular spaces are present

A. If both Assertion and Reason are true and the Reason son is the

correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D



209. Which of the following statements is not correct about earthworm?

A. It shows metanerism and the number of segments veries from 100-

120.

B. The first segment at the anterior end of the body is called as the

buccal segment or peristomium.

- C. The first segment is prostomium.
- D. The skin of earthworm is brown due to the presence of porphyrin.

Answer: C

210. The earthworms move with the help of

A. Setae, muscles, and hydrostatic skeleton

B. Setae alone

C. Muscles alone

D. Parapodia

Answer: A

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211. In earthworm, there is a ring of S-shaped setae, embedded in the

epidermal pit at the middle of each segment except

A. First

B. Last

C. Clitellar

D. First, last, and clitellar segments

Answer: D

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212. There are four pairs of spermathecal pores in pheretima which are located in intersegmental grooves between segments

A. 5/6, 6/7,7/8, 8/9

B. 67, 7/8, 7/8, 8/9, 9/10

C. 14/15, 15/16, 16/17, 17/18

D. 1/2, 2/3, 3/4, 4/5

Answer: A

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213. Tick mark the wrong match (in earthworm).

- A. Female genital aperture-Midventral line of 14th segment
- B. A pair of male genital apertures- Ventrolateral sides of 18th segment
- C. Genital papillae- Ventral surface of 17th and 19th segments
- D. Clitellum of Cingulum-9th to 14th segment

Answer: D

Watch Video Solution

214. In earthworn, typhlosole extends between 27th and 95th segments.

Its function is

- A. Excretion
- B. Enhaces effective area of absorption after digestion

C. Respiration

D. Locomotion

Answer: B

Watch Video Solution

215. Which of the following statements is incorrect about the circulatory system of earthworm?

- A. Pheretima represents a closed type of blood vascular system.
- B. Blood glands are present in 4th, 5th, and 6th segments, they

produce blood cells and hemoglobin dissolved in plasma.

C. There are four pairs of hearts in earthworm present in 7th, 9th,

12th, and 13th segments.

D. In the dorsal vessel, blood flows in forward direction and is without values.

Answer: D

216. In Earthworm, testes occur in segments

A. 11 and 12

B. 12 and 13

C. 14 and 15

D. 10 and 11

Answer: D

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217. During copulation in earthworms, sperms are transferred between

copulating individuals from

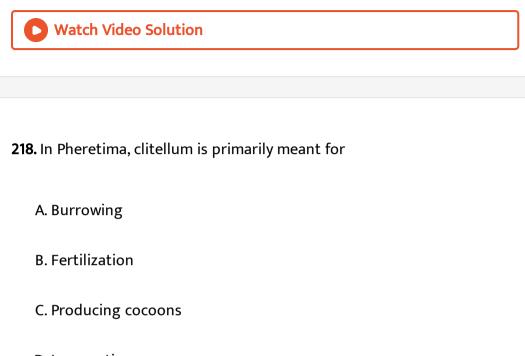
A. Female genital pore to spermathecae

B. Male genital pores to spermathecae

C. Spermathecae to cocoon

D. Male genital pores to outside

Answer: B



D. Locomotion

Answer: C

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219. Lateral oesophageal hearts in earthworm connect

A. Supra-oesophageal and dorsal vessel to ventral vessel

- B. Dorsal vessel to sub-oesophageal vessel
- C. Lateral oesophageal vessel to subneural vessel
- D. Dorsal vessel to subneural vessel

Answer: A

Watch Video Solution

220. Flow of blood in the ventral vessel of earthworm is

A. Forwards

B. Backwards

C. Backwards in half of it and forwards in another half

D. None of these

Answer: B

221. The ventral surface of mature earthworm can be distin guished from

dorsal surface by

- A. Absence of middorsal line
- B. Presence of clitellum
- C. Presence of genital papillae
- D. None of these

Answer: C

Watch Video Solution

222. Which of the following parts of gut occupies most part of the 8th

segment?

- (a) Oesophagus
- (b) Gizzard
- (c) Stomach
- (d) Intestine

A. Oesophagus

B. Gizzard

C. Stomach

D. Intestine

Answer: B

Watch Video Solution

223. Photoreceptors (phaosomes) in earthworm occur in

A. Epidermis of dorsal body wall and prostomium

B. Epidermis of ventral body wall

C. Both (1) and (2)

D. Epidermis ofprostomium only

Answer: A

Watch Video Solution

224. By which of the following nephridia excretion is exonephric?

A. Pharyngeal nephridia

B. Septat nephridia

C. Integumentary nephridia

D. Integumentary and pharyngeal nephridia

Answer: C

Watch Video Solution

225. Earthworm is

A. Ammonotelic

B. Ureotelic

C. Uricotelic

D. Ureotelic and amrnonotetic

Answer: D



226. Pharyngeal nephridia of Pheretima are found in segments

A.3, 4, 5

B.4, 5, 6

C.5, 6, 7

D. 6, 7, 8

Answer: B

Watch Video Solution

227. Periplaneta americana and Blatta orientalis differ mainly from each

other in

A. Body size

B. Wing length

C. Length of antenna

D. Life history

Answer: B

Watch Video Solution

228. In cockroach, the body in spite of being covered by an exoskeleton of

strong chitinous cuticle remains flexible due to

A. Tergites

B. Stemites

C. Pleurites

D. Arthrodial membranes

Answer: D



- 229. Wings are vestigial in
- (a) Male Blatta
- (b) Female Blatta
- (c) Male Periplaneta
- (d) Female Periplaneta
 - A. Male Blatta
 - B. Female Blatta
 - C. Male Periplaneta
 - D. Female Periplaneta

Answer: B



230. Structures which help in distinguishing a male cockroach from a

female cockroach are

(a) Anal styles

(b) Anal cerci

(c) Collateral glands

(d) Ocelli

A. Anal Siyles

B. Anal cerci

C. Colleterial glands

D. Ocelli

Answer: A

Watch Video Solution

231. In cockroach, elytra are articulated to the tergiles of

- (a) Prothorax
- (b) Mesothorax
- (c) Metathorax
- (d) Abdomen
 - A. Prothorax
 - **B.** Mesothorax
 - C. Metathorax
 - D. Abdomen

Answer: B



232. Which mouth part of cockroch acts as upper lip?

- (a) Labium
- (b) Labrum

(c) First maxilla

(d) Hypopharynx

A. Labium

B. Labrum

C. First maxilla

D. Hypopharynx

Answer: B

Watch Video Solution

233. Position of head in relation to body axis of cockroach is known as

- (a) Epignathous
- (b) Hypognathous
- (c) Prognathous
- (d) None of these

A. Epignathous

B. Hypognathous

C. Prognathous

D. None of these

Answer: B

Watch Video Solution

234. Endoskeletal structure present in the head is

- (a) Apodeme
- (b) Tentorium
- (c) Fenestra
- (d) Clypeus
 - A. Apodeme
 - B. Tentorium
 - C. Fenestra
 - D. Clypeus

Answer: B



235. Periplaneta has mosaic vision. Each ommatidium is composed of

following parts except

A. Corneal lens

- B. Refractive crystalline cone
- C. Rhabdome
- D. Phaosome

Answer: D



236. Which of the following is a wrong match in cockroach?

A. Head-Hypognathous

B. Heart-13-chambered

C. Anal styles-Female cockroach

D. Excretion-Malpighian tubules

Answer: C

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237. Pericardial space in Cockroach is regularly altered by muscles

A. Circular

B. Longitudinal

C. Alary

D. Ciliary

Answer: C

Watch Video Solution

238. Number of segments in cockroach leg :

(a) Five

(b) Three

(c) Six

(d) Nine

A. Five

B. Three

C. Six

D. Nine

Answer: A



239. The main function of blood vascular system in cockroach is

(a) Distribution of oxygen

- (b) Distribution of absorbed nutrients
- (c) Distribution of heat
- (d) All of these
 - A. Distribution of oxygen
 - B. Distribution of absorbed nutrients
 - C. Distribution of heat
 - D. All of these

Answer: B

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240. The correct sequence of arrangements of segments in the leg of

cockroach is

- (a) Trochanter, cox a, femur, tibia, tarsus
- (b) Coxa, trochanter, femur, tibia, tarsus
- (c) Coxa, femur, trochanter, tibia, tarsus
- (d) Trochanter, femur, coxa, tibia, tarsus

A. Trochanter, cox a, femur, tibia, tarsus

B. Coxa, trochanter, femur, tibia, tarsus

C. Coxa, femur, trochanter, tibia, tarsus

D. Trochanter, femur, coxa, tibia, tarsus

Answer: B

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241. Function of Malpighian tubules of cockroach :

- (a) Respiration
- (b) Digestion
- (c) Excretion
- (d) Reproduction

A. Respiration

B. Digestion

C. Excretion

D. Reproduction

Answer: C



242. Structure that helps the cockroach to walk on smooth surfaces is

- (a) Trochanter
- (b) Plantulae
- (c) Cardo
- (d) Scape
 - A. Trochanter
 - B. Plantulae
 - C. Cardo
 - D. Scape

Answer: B

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243. Open blood vascular system without any respiratory pigment is found in

A. Earthworm

B. Cockroach

C. Nereis

D. Hydra

Answer: B

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244. The number of spiracles in Periplaneta americana is

A. 10

B. 20

C. 8

D. 6

Answer: B

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245. The function of stomodeal valve in the gut of the cockroach is to prevent the regurgitation of partially digested food from

- (a) Midgut into crop
- (b) Pre-oral cavity
- (c) Midgut into hindgut
- (d) None of these
 - A. Midgut into crop
 - B. Pre-oral cavity
 - C. Midgut into hindgut
 - D. None of these

Answer: A

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246. The unit of photoreception, in a compound eye of cockroach and

other insects is

A. Crystalline cone

B. Rhabdome

C. Ommatidium

D. Facet

Answer: C

Watch Video Solution

247. Which of the two parts in cockroach are fundamentally similar in

structure?

- (a) Anal styles and labrum
- (b) Wings and anal cerci
- (c) Maxillae and legs
- (d) Mandibles and antennae
 - A. Anal styles and labrum
 - B. Wings and anal cerci
 - C. Maxillae and legs
 - D. Mandibles and antennae

Answer: C



248. Number of chambers in the heart of cockroach :

- (a) 3
- (b) 4
- (c) 13
- (d) 23

A. 3		
B. 4		
C. 13		
D. 23		

Answer: C



249. In cockroach, ootheca is produced by secretion of -

- (a) Collateral glands
- (b) Conglobate gland
- (c) Mushroom glands
- (d) Gynatrium
 - A. Colleterial glands
 - B. Conglobate gland
 - C. Mushroom glands

D. Gynatrium

Answer: A



250. The number of eggs contained in an ootheca of cockroach is

A. 8

B. 16

C. 32

D. 4

Answer: B

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251. Conglobate organ is a part of male reproductive system of

A. Prawn

B. Cockroach

C. Earthworm

D. Frog

Answer: B

Watch Video Solution

252. The number of ganglia in the abdominal nerve-cord of cockroach is

A. 6

B. 9

C. 10

D. 12

Answer: A

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253. The frog 's body is divisible into

A. Head, neck, abdomen

B. Head, neck, trunk

C. Head, trunk

D. None of these

Answer: C

Watch Video Solution

254. Which of the following statements is not true?

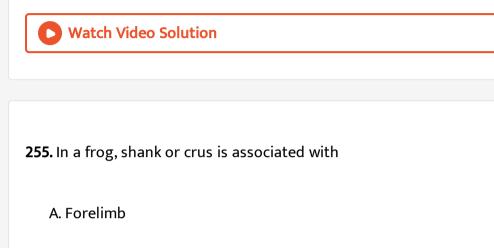
A. The body color of frog offers it protective coloration.

B. The summer sleep of frog is called aestivation.

C. Tail is present in the lifecycle of frog.

D. Frog's mouth is bounded by a pair of lips.

Answer: D



- B. Hind limb
- C. Head

D. Trunk

Answer: B



256. Which of the following is present in the skin of frog?

- (a) Serous gland
- (b) Mucus gland
- (c) Chromatophore cells
- (d) All of these
 - A. Serous gland
 - B. Mucus gland
 - C. Chromatophore cells
 - D. All of these

Answer: D



257. The total number of bones in frog is

(a) 145

(b) 159

(d) 178

A. 145

B. 153

C. 352

D. 178

Answer: B

Watch Video Solution

258. Which of the following vertebra is amphicoelous type in frog?

(a) 3rd

(b) 9th

(c) 8th

(d) 10th

A. 3rd

B. 9th

C. 8th

D. 10th

Answer: B

Watch Video Solution

259. The digital formula for the hind limbs of frog is

A. 0. 2, 2, 3, 3

B. 2, 2, 3, 3, 3

C. 2,2,3,4, 3

D. 0, 2, 1,2,3

Answer: C

Watch Video Solution

260. Poison glands are usually present in the skin of

A. Frogs

B. Toads

C. Newts

D. None of these

Answer: B

Watch Video Solution

261. Frog is

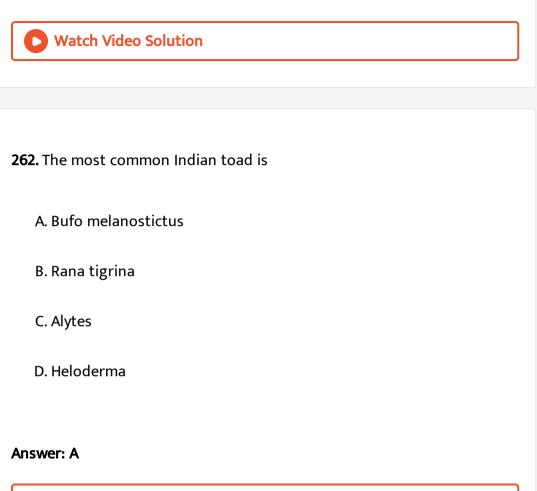
A. Homoeothermic

B. Poikilothermic

C. Homeostatic

D. Warm-blooded

Answer: B



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263. Capacity of amphibians to change colour is called

A. Synchronous

B. Metachronous

C. Metachrosis

D. None of these

Answer: C

Watch Video Solution

264. Which is not true about frog?

A. Salivary glands are absent.

B. Maxillary teeth are arranged along the margin of upper jaw and the

lower jaw is toothless.

C. Muscular tongue is bilobed at tip and free from behind.

D. The tadpole larva of frog has a short alimentary canal.

Answer: D

265. Bidder's canal in frog is present in

A. Testes

B. Kidney

C. Ovary

D. Brain

Answer: B



266. During active period, maximum respiratory activity is through

A. Cutaneous respiration

- **B.** Branchial respiration
- C. Pulmonary respiration

D. Buccopharyngeal respiration

Answer: C



267. How many lymph hearts are present in frog?

A. Single

B. One pair

C. Two pairs

D. Three pairs

Answer: C



268. Which of the following parts of frog's heart has spiral valve?

A. Conus arteriosus

B. Synangium

C. Pylangium

D. Both (1) and (2)

Answer: C

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269. What does middle ear contain ?

A. Three ear ossicles, i.e., malleus, incus, and stapes

B. One ear ossicle columella auris

C. Two ear ossicles columella auris and stapedi al plate

D. No ear ossicle

Answer: B



270. Cerebrum is the part of

A. Forebrain

B. Midbrain

C. Hindbrain

D. Rhombencephalon

Answer: A

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271. The number of cranial nerves and spinal nerves in frog is

A. 10 and 20

B. 10 and 10

C. 20 and 10

D. 20 and 20

Answer: D



272. Which of the followinig is true?

A. Frog has monocular vision .

B. Frog has membrane present al lhc body surface.

C. Frog is myopic (short sighted) on land.

D. All of these are true.

Answer: D



273. Spawning is termed as

- A. Release of sperms in male
- B. Release of ovum in female
- C. Another term for fertilization
- D. None of these

Answer: B



274. Which of the following systems undergoes maximum changes in frog

during metamorphosis?

- A. Digestive system
- B. Circulatory system
- C. Reproductive system
- D. Nervous system

Answer: B

275. Respiration in the tadpole of frog takes place by

A. Lungs

B. Gills

C. Buccal cavity

D. Skin

Answer: B

Watch Video Solution

276. Frog is

A. Fully aquatic

B. Terrestrial

C. Both aquatic and terrestrial

D. Arboreal

Answer: C



277. Fertilization in frog takes place in

A. Mud

B. Land

C. Water

D. Air

Answer: C

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278. The skull of frog is

A. Non-condylic

B. Diconidylic

C. Monocondylic

D. None of these

Answer: B

Watch Video Solution

279. On removing the thyroid from the tadpole of frog

A. Metamorphosis will stop

B. It grows into a giant frog

C. It grows into a dwarf frog

D. Normal metamorphosis occurs

Answer: A

280. How many ova are laid at a time by a mature female frogs ?

A. 2500-3000 fertilized eggs

B. 2500-3000 unfertilized egg

C. 200-300 fertilized eggs

D. 200- 300 unfertilized eggs

Answer: B

Watch Video Solution

281. Calciferous glands are present in earthworm in

A. Pharynx and gizzard

B. Stomach and buccal cavity

C. Pharynx and stomach

D. Only in stomach

Answer: D



282. In earthworm, skeleton-like function is performed by

A. Coelomic fluid

B. Alimentary canal filled with food

C. Typhlosole

D. Clitellum

Answer: A



283. One of the following is unpaired in earthworm.

A. Male genital pore

B. Female genital pore

C. Genital papillae

D. Spennathecae

Answer: B

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284. Which of the following is incorrectly matched?

A. Male genital pore-18th segment

B. Female genital pore-14th segment

C. Lateral oesophageal hearts-7th and 9th segments

D. Seminal vesicles-11th and 12th segments

Answer: C

285. Trait common amongst Earthworm , Leech and centipede is

A. Absence of legs

B. Presence of ventral nerve cord

C. Presence of malpighian tubules

D. They are hermaphrodite

Answer: B

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286. In Earthworm arrangment of blood vessels is

A. Different in last 15 segments

B. Different in first 13 segments

C. Same throughout

D. Different in middle 13 segments

Answer: B



287. In a copulatory pair of earthwonns, there occur

A. Reciprocal fertilization and internal fertilization

B. Cross fertilization and external fertilization

C. External fertilization and internal fertilization

D. Cross fertilization and reciprocal fertilization

Answer: D



288. In earthworm setae are present in all segments except

A. Clitellum

B. First segment

C. Clitellum and last segment

D. Clitellum, first and last segment

Answer: D

Watch Video Solution

289. The excretory organ of earthworm are

A. Nephridia

B. Solenocytes

C. Green glands

D. Kidneys

Answer: A

290. Just as there are nephridia in earthworm, so are

A. Myotomes in fish

B. Statocysts in prawn

C. Parotid glands in toad

D. Flame cells in liver fluke

Answer: D

Watch Video Solution

291. Life span of Earthworm is

A. 1-3 years

B. 2-8 years

C. 3.5-10.5 years

D. 6-8 years

Answer: C



292. Copulation period of Earthworm is

A. One hour

B. Two hours

C. Four hours

D. About one week

Answer: A



293. Dorsal vessel of Earthworm is

A. Distributing

B. Collecting

C. Collecting in first 13 segments and distributing in the rest

D. Distribution in first 13 segments and collecting in the rest

Answer: D

Watch Video Solution

294. Who wrote the memoir on Pheretima and described its anatomy?

A. M.L. Bhatia

B. B.I. Sunderraj

C. K.N. Bahl

D. Beni Prasad

Answer: C

295. Spermathecae of Earthworm take part in

A. Collection of sperms of other worm

B. Collection of sperms of the same worm

C. Sperm maturation

D. Fertilization

Answer: A

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296. A closed circulatory system is found in :

A. Earthworm

B. Cockroach

C. Grasshopper

D. Housefly

Answer: A



297. In Earthworm mouth is situated on

A. Prostomium

B. Peristomium

C. Stomium

D. Protostomium

Answer: B



298. Annelida is advanced over nematoda in having

A. Closed circulation

- B. Metameric segmentation
- C. True coelom
- D. All the above

Answer: D

Watch Video Solution

299. Segments of earthworm are called

A. Metamere

- B. Sarcomere
- C. Prostomium
- D. Podomeres

Answer: A

300. In Earthworm, dorsal blood vessel is collecting channel

A. Behind 13th segment

B. Anterior 13 segment

C. Throughout

D. In typhlosolar region

Answer: A

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301. Blood vessels in Pheretima, which have valves are

A. Dorsal

B. Ventral

C. Lateral

D. Integumentary

Answer: A



302. A pair of male genital pores in earthworm are present on the ventrolateral sides of the

A. 14

B. 18

C. 13

D. 19

Answer: B

303. Chloragogen cells found in coelomic fluid of earthworms are analogous to vertebrate

A. Liver

B. Lung

C. Kidney

D. Spleen

Answer: A

Watch Video Solution

304. In Pheretima, which nephridia are present?

A. Protonephridia

B. Coelom duct

C. Micro-metanephridia

D. Solenocytes

Answer: C

Watch Video Solution

305. The blood vessels in earthworm are

A. Different in last 15 segments

B. Different in first 13 segments

C. Same throughout

D. Different in middle segments

Answer: B

Watch Video Solution

306. The enteronephric nephridia of earthworm perform the function of

A. Respiration

B. Excretion

C. Osmoregulation

D. Thermoregulation

Answer: C

Watch Video Solution

307. In Pheretima, locomotion occurs with the help of

A. Circular muscles

B. Longitudinal muscles and setae

C. Circular, longitudinal muscles and setae

D. Parapodia

Answer: B

308. Earthworm takes food by which method?

A. Ciliary feeding

B. Detritus feeding

C. Liquid feeding

D. None of these

Answer: B

Watch Video Solution

309. When an earthworm secretes a slime layer to receive eggs and sperm

and form a 'cocoon,' this secretion is produced by the

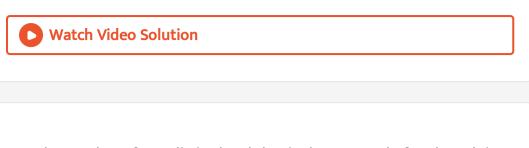
A. Chitinous setae

B. Cuticle

C. Clitellum

D. Epidermal muscles

Answer: C



310. The number of ganglia in the abdominal nerve-cord of cockroach is

A. 6	
B. 9	
C. 10	
D. 12	

Answer: B



311. In Frog, jelly around the eggs is deposited

A. Ovary

B. Oviduct

- C. Water after fertilization
- D. Water during fertilization

Answer: B

Watch Video Solution

312. Young Cockroach is called

A. Maggot

B. Ephyra

C. Nymph

D. Pupa

Answer: C

313. In arthropods the body cavity is called

A. Interon

B. Pseudocoel

C. Hemocoel

D. Coelom

Answer: C

Watch Video Solution

314. How many chambered heart is found in cockroach?

A. Cockroach

B. Earthworm

C. Frog

D. Rabbit

Answer: B Watch Video Solution 315. Blood vascular system of earthworm is of A. Cockroach B. Fathworm C. Hydra D. Nereis Answer: A Watch Video Solution

316. If corpora allata are removed from the first instar of a nymph, then

A. It will remain nymph forever

B. It will enter into the secondary stage of juvenile

C. It will become adult immediately

D. None

Answer: C

Watch Video Solution

317. An insect which undergoes complete metamorphosis is called

A. Ametabola

B. Hemimetabola

C. Holometabola

D. None of these

Answer: C

318. The function of ecdysone hormone in insect is

A. The growth and development of larva

B. The maturation into adult and laying eggs

C. To carry moulting in larval stage to form pupa

D. The secretion of cuticle in adult

Answer: C

Watch Video Solution

319. Oxygen-carrying respiratory pigment of cockroach and other insect is

A. Hemoglobin

B. Hemocyanin

C. Hemoerythrin

D. None

Answer: D



320. The major insect body parts are :

A. Head, thorax, and abdomen

B. Head, trunk, and abdomen

C. Cephalothorax, head, and abdomen

D. Trunk, thorax, and abdomen

Answer: A

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321. What is the similarity between fly, mosquito and cockroach

A. Thirteen-chambered heart

B. Three pairs of legs

C. Open excretory system

D. Housefly

Answer: B

Watch Video Solution

322. In the absence of a respiratory pigment, how exchange of gases in

the cockroach takes place?

A. Hemozoin

B. Hemocyanin

C. Hemoglobin

D. Absent

Answer: D

323. Which type of vision is found in cockroach?

A. Mosaic

B. Superposition

C. Overlapping

D. None of these

Answer: A

Watch Video Solution

324. Describe in brief the mouth parts of cockroach.

A. Locust

B. Cockroach

C. Bedbug

D. Housefly

Answer: B



325. In Periplaneta, the cuticular lipid is secreted by

A. Hypodermal cells

B. Oenocyte cell

C. Dermal gland cells

D. Basal cell

Answer: B

Watch Video Solution

326. Compound eyes of cockroach produce vision known as:

A. One compound eye

- B. Only two compound eyes
- C. Two simple eyes
- D. Two compounds and two simple eyes

Answer: B

Watch Video Solution

327. Haemocoel is present in

A. Pheretima

B. Periplaneta

C. Sponge

D. Ascaris

Answer: B

328. What are the possible advantages and disadvantages of a chitinous

exoskeleton in arthropods?

A. Periplaneta

B. Ascaris

C. Pheretima

D. Hydra

Answer: A

Watch Video Solution

329. Bull frog of India is

A. Rana tigrina

B. Rana esculent

C. Rana limnocharis

D. Rana cyanophlyctis

Answer: A



330. Croaking of frog is

A. Hunger call

B. Danger call

C. Musical tone

D. Sex call for female

Answer: D



331. Opening of rectum in Frog is called

A. Vestibule

B. Cloaca

С. Соссух

D. None of the above

Answer: B

Watch Video Solution

332. The number of fingers in the hindlimb of frog is

A. 4

B. 5

C. 6

D. 7

Answer: B

333. Mucus helps frog in forming

A. Dry skin

B. Moist skin

C. Rough skin

D. Thick skin

Answer: B

Watch Video Solution

334. Chromatophores in skin of frog found in stratum

A. Comeum

B. Compactum

C. Germinativum

D. Mostly spongiosum

Answer: D

Watch Video Solution

335. One of the main functions of frog's skin is

A. Diffusion of respiratory gases

B. Absorption of ultraviolet rays to produce vitamin D

C. Storage of excess food in the form of subcutaneous fat

D. Excretion of nitrogenous waste in the form of uric acid

Answer: A

Watch Video Solution

336. In frog, the surface of attachment of tongue is

A. Palatine

B. Sphenoid

C. Pterygoid

D. Hyoid apparatus

Answer: D

Watch Video Solution

337. In frog, digestion of fats occurs mostly in

A. Rectum

B. Stomach

C. Duodenum

D. Small intestin

Answer: D

Watch Video Solution

338. A fully grown tadpole larva of frog respires through

A. Gills

B. Skin

C. Lungs

D. Tail fin

Answer: B

Watch Video Solution

339. In frog, cutaneous respiration takes place

A. Always

B. Only on land

C. Only in water with pulmonary respiration

D. Only in water pulmonary respiration is not occurnng

Answer: A



340. Amphibian heart is

A. One-chambered

B. Three-chambered

C. Two-chambered

D. Four-chambered

Answer: B



341. Sciatic vein of frog opens in

A. Heart

B. Kidney

C. Pelvic region

D. Liver

Answer: C

Watch Video Solution

342. The functional kidney of frog tadpole is

A. Pronephros

B. Archinephros

C. Mesonephros

D. Metanephros

Answer: A

Watch Video Solution

343. Nitrogenous excretory product of tadpole of frog is

A. Urea

B. Guanine

C. Uric acid

D. Ammonia

Answer: D

Watch Video Solution

344. In frog

A. Acetycholine is the only neurotransmitter

B. Noradrenaline is the only neurotransmitter

C. Both acetylcholine and noradrenaline act as neurotransmitters

D. Neither acetylcholine nor noradrenaline acts as neurotransmitter

Answer: C

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345. What will happen if the eyes of a frog are covered by paper

A. Frog will soon die

B. Frog will not move

C. Frog will not do anything

D. Frog will move to one side only

Answer: C



346. A frog has

A. Eyes but no lids

B. Jaws but no teeth

C. Hands but not fingers

D. Ears but not pinnae

Answer: D

Watch Video Solution

347. Which of these is an ear ossicle in frog

A. Incus

B. Auricle

C. Malleus

D. Columella auris

Answer: D

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348. Columella auris is a modified

A. Quadrate

B. Article

C. Hyomandibular

D. Sphenethmoid

Answer: C

Watch Video Solution

349. Fenestra ovalis in frog is the

A. Air-filled cavity of middle ear

B. Communication between pharynx and tympanic cavity

C. External opening of tympanic cavity covered by tympanic membrane

D. Opening of auditory capsuk which separates middle car from

internal ear

Answer: D

Watch Video Solution

350. Chromatophores in the skin of frog found in stratum are

A. Hormones

B. Environment

C. Nervous activity

D. Nervous and hormonal activities

Answer: A

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351. Mesorchium refers to

A. Fold of peritoneum between a kidney and a testis

B. Internal tissue of testes

C. Capsules of testes

D. None of these

Answer: A

Watch Video Solution

352. Why is urethra of male called urinogenital canal?

A. Male

B. Female

C. Male and female

D. Male or fema

Answer: A



353. Tendons and ligaments are specialized type of

A. Nervous tissue

B. Epithelial tissue

C. Muscular tissue

D. Fibrous connective tissue

Answer: D

Watch Video Solution

354. Which of the following is a transparent tissue ?

A. Tendon

B. Ligament

C. Fibrous cartilage

D. Hyaline cartilage

Answer: D

Watch Video Solution

355. Ciliated epithelium is present In

A. Trachea

B. Ureter

C. Intestine

D. Nasal chamber

Answer: A

Watch Video Solution

356. Differentiate between Bond and cartilage

A. Haversian canal

B. Blood vessel

C. Lymph vessel

D. None of these

Answer: A

Watch Video Solution

357. Minimum regenration power is present in

A. Nervous tissue

B. Connective tissue

C. Epithelial tissue

D. None of these

Answer: A

Watch Video Solution

358. After examining the blood group of husband and wife, the doctor advised them not to have more than one child, the blood group of the couple are likely to be:

(a) Male Rh- and male Rh+

- (b) Female Rh- and male Rh+
- (c) Male Rh+ and female Rh+
- (d) Male Rh- and female Rh-
 - A. Rh+ male and Rh- female
 - B. Rh- male and Rh+ female
 - C. Rh+ male and Rh+ female
 - D. Rh- male and Rh- femal e

Answer: A



359. pH of blood

A. Between 7 and 8

B. Between 2 and 4

C. Between 12 and 14

D. Between 2 and 5

Answer: A

Watch Video Solution

360. Histamine is secreted by

A. Goblet cell

B. Nerve cell

C. Kupffer cell

D. Mast cell

Answer: D



361. The lifespan of human RBC is

A. 50 days

B. 70 days

C. 120 days

D. 220 days

Answer: C

Watch Video Solution

362. During blood clotting, which of the following is used?

A. Co

B. Ca^{++}

C. Na^+

D. Cl^{-}

Answer: B

Watch Video Solution

363. Hemoglobin contains

A. Fe^{++}

B. Mg^{++}

C. Na^{++}

D. $Ca^{+\,+}$

Answer: A

Watch Video Solution

364. Which of the following does not play a role in blood coagulation

A. Vitamin K

B. Vitamin D

C. Calcium ions

D. Fibrinogen

Answer: B

Watch Video Solution

365. Which of the following cells of connective tissue secrete antibodles ?

A. Mast cells

B. Reticular cells

C. Adipose cells

D. Plasma cells

Answer: D



366. Male frogs can croak lounder than females because of

A. Vocal sacs

B. Stronger

C. Larger in size

D. Larger sound box

Answer: A



367. During hibernation, frog respires with

A. Lung only

- B. Moist skin only
- C. Buccal cavity only
- D. External gills and lungs

Answer: C

Watch Video Solution

368. Acrosome of the sperm of frog helps in fertilization by

A. Activating the oocyte to engulf the sperm

B. Inducing formation of cone of reception in oocytc

C. Stimulating oocyte to undergo second maturation div1s1on

D. Secreting sperm lysin to dissolve covering membrane of oocyte

Answer: D

369. Oxygen carrier or the respiratory pigment in blood of frog and other

vertebrates is

A. Myoglobin

B. Cytochrome

C. Hemoglobin

D. Hemocyanin

Answer: B

Watch Video Solution

370. Enzyme secreted from the acrosome of frog's sperm is

A. Sperm lysin

B. Testosterone

C. Sperm trypsin

D. Sperm gastrin

Answer: A



371. The epithelial lining of respiratory system in frog is derived by

A. Ectoderm

B. Endoderm

C. Mesoderm

D. Mesoderm and endoderrn

Answer: B



372. Photoreceptors in Pheretima are present

- A. On the ventral side of skin
- B. On the dorsal side of skin
- C. On both sides
- D. In clitellum

Answer: B

Watch Video Solution

373. Frog is

Ureotelic

Uricotelic

Ammonotelic

None of the above

A. Ureotelic

B. Uricotelic

C. Ammonotelic

D. None of the above

Answer: A



374. Alary muscles in cockroach occur in the

A. Heart wall and help in blood circulation

B. Dorsal septum and connect the septum with heart and tergite

C. Wall of gizzard and help in its contraction

D. Intestinal wall and help in digestion

Answer: B



375. Spermathecal pores of Pheretima are present in

A. 1/2, 2/3, 3/4, 4/5

B. 6/7, 7/8, 8/9, 9/10

C. 5/6, 6/7, 7/8, 8/9

D. 14/15, 15/16, 16/ 17, 17/ 18

Answer: C



376. Periplaneta americana differs from Blatta orientalis in having

A. No wing

B. Only first pair of wings

C. Well-developed wings

D. Only second pair of wings

Answer: B



377. Colleterial gland is present in

A. Male cockroach

B. Female cockroach

C. None

D. Both male and female cockroach

Answer: B

Watch Video Solution

378. Movement of which muscles can alter the pericardial space in cockroach?

A. Ciliary

B. Alary

C. Circular

D. Longitudinal

Answer: B



379. Hemoglobin is dissolved in the blood plasma of

A. Rabbit

B. Cockroach

C. Earthworm

D. Frog

Answer: C

Watch Video Solution

380. The role of typhlosole of earthworm is to

A. Emulsify

B. Control blood flow

C. Increase absorption area of digested food

D. Produce digestive enzymes

Answer: C

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381. Septum is lacking in Pheretima in segments

A. 7/8, 6/7

B. 3/4, 9/10

C. 4/5, 8/9

D. 6/7, 8/9

Answer: B

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382. Mouth parts of cockroach aretype

A. Piercing and sucking type

B. Biting and sucking type

C. Biting and chewing type

D. Sponging type

Answer: C

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383. Which one is not true about earthworm?

A. It can live in the deficiency of O2 for 3-10 h.

B. It has a life span of 3 .5-10 years.

C. Pineal setae are dissolved in KOH

D. It is soilivorous

Answer: C



384. Assertion (A) Periplaneta americana is nocturnal, omnivorous, household pest.

Reason (R) It is because it acts as scavenger.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

- C. If Assertion is true, but Reason is false.
- D. If both Assertion and Reason are false.

Answer: C



385. Assertion: Earthworm is brown- or clay-coloured.

Reason: Because of the presence of pigment porphyrin.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A



386. Assertion: Chloragogen cells are considered analogous to the liver of

vertebrates.

Reason: Because it is concerned with the storage of reserve food, deamination of proteins, formation of urea, etc.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

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387. Assertion: Earthworm is saprozoic.

Reason: Because it feeds on small insects.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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388. Assertion: Earthworm is hermaphrodite.

Reason: Because in earthworm both sexes are separate.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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389. Assertion : Earthworm are known are known as friends of farmers Reason : Earthworms make burrows in the soil and make the soil porous, which helps in repiration and penetration of developing plant roots.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C



390. Assertion: In the body of earthworm, porphyrin pigment is found.

Reason: Because it protects earthworm from chemicals.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

391. Assertion: In earthworm, development larval stage is not found.

Reason: Because in development larval stage is not found.

(a) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

(b) If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

(c) If Assertion is true, but Reason is false.

(d) If both Assertion and Reason are false.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A

392. Assertion: In the anus of earthworm, depressor muscles are found. Reason: These muscles help in the elimination of excretion from rectum

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A



393. Assertion: In cockroach, inspiration is an active process.

Reason: It is due to the contraction of tergosternal muscle.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D

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394. Assertion: In frog, sinus venosus is present.

Reason: In mammals and birds, the remnant of sinus venosus has taken

part in the formation of SA node.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

- C. If Assertion is true, but Reason is false.
- D. If both Assertion and Reason are false.

Answer:

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395. Assertion: Septal nephridia take part in osmoregulation.

Reason: They are enteronephric.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: A



396. Assertion: In Periplaneta, only superposition or overlappmg images are formed.

Reason: Retinal pigment sheath remains contracted throughout the life.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: D



397. Assertion: The pharyngeal gland of earthworm includes chromophil cells, which secrete saliva.

Reason: Salivary amylase of earthworm is essential to digest carbohydrates.

A. If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: C

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398. Assertion: The head of cockroach is hypognathus.

Reason: The proximal part of lower lip of cockroach is called pastmentum.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: B

399. Assertion: The heart of cockroach is neurogenic.

Reason: The heartbeat rate in cockroach is 49 per minute.

(a) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

(b) If both Assertion and Reason are true, but the Reason is not the correct explanation of the Assertion.

(c) If Assertion is true, but Reason is false.

(d) If both Assertion and Reason are false.

A. If both Assertion and Reason are true and the Reason is the correct

explanation of the Assertion.

B. If both Assertion and Reason are true, but the Reason is not the

correct explanation of the Assertion.

C. If Assertion is true, but Reason is false.

D. If both Assertion and Reason are false.

Answer: B

1. In which one of the following preparations are you likely to come across cell junctions most frequently ?

A. Hyaline cartilage

B. Ciliated epithelium

C. Thrombocytes

D. Tendon

Answer: B

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2. The kind of tissue that forms the supportive structure in our pinna (external sears) is also found in

A. tip of the nose

B. vertebrae

C. nails

D. ear ossicles

Answer: A

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3. Cell junctions called tight , adhering and gap junctions are found in

A. Neural tissue

B. Muscular tissue

C. Connective tissue

D. Epithelial tissue

Answer: D

4. The epithelial tissue present on the inner surface of bronchioles and

fallopian tubes is

(a) Squamous

(b) Cuboidal

(c) Glandular

(d) Ciliated

A. Squamous

B. Cuboidal

C. Glandular

D. Ciliated

Answer: D



5. Which one of the following is correct pairing of a body part and the

kind of muscle tissue that moves its?

A. Iris - Involuntary smooth muscle

B. Heart wall - Involuntary unstriated muscle

C. Biceps of upper arm - smooth muscle fibres

D. Abdominal wall - smooth muscle

Answer: D

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6. The kind of epithelium which forms inner walls of blood vessels is

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

A. cuboidal epithelium

- B. columnar epithelium
- C. ciliated columnar epithelium

D. squamous epithelium

Answer: D



- 7. The ciliated columnar epithelial cells in humans are known to occur in
- (a) Fallopian tubes and urethra
- (b) Eustachian tube and stomach lining
- (c) Bronchioles and Fallopian tubes
- (d) Bile duct and oesophagus
 - A. Fallopian tubes and urethra
 - B. Eustachian tube and stomach lining
 - C. Bronchioles and Fallopian tubes
 - D. Bile duct and oesophagus

Answer: C



- 8. Compared to those of humans, erythrocytes of Frog are
- (a) Nucleated and with hemoglobin.
- (b) Very much smaller and fewer
- (c) Nucleated and without hemoglobin.
- (d) Without nucleus but with hemoglobin.

A. Nucleated and with hemoglobin.

- B. Very much smaller and fewer
- C. Nucleated and without hemoglobin.
- D. Without nucleus but with hemoglobin.

Answer: C



9. Select the correct statement regarding the specific disorder of muscular of skeletal system

A. Osteoporosis: Decrease in bone mass and higher chances of

fractures with advancing age.

B. Myasthenia gravis: Autoimmune disorder which inhibits sliding of

myosin filaments

- C. Gout: Inflammation of joints due to extra deposition of calcium.
- D. Muscular dystrophy: Age-related shortening of muscles.

Answer: A

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10. Select the correct statement from the ones given below with respect to Periplaneta americana.

A. There are 16 very long Malpighian tubules present at the junctions

of midgut and hindgut

B. Grinding of food is carried out only by the mouth parts

C. Nervous system located dorsally, consists of segmentally arranged

ganglia joined by a pair of longitudinal connective

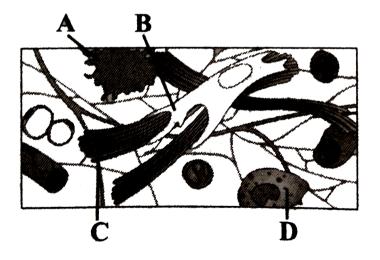
D. Males bear a pair of short thread like anal styles

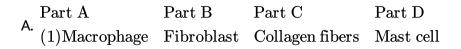
Answer: D

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11. Given is the diagrammatic sketch of a certain type of connective tissue

Identify the parts labelled as A,B,C and D and select the correct option.





В.	Part A	Part B	Part C	Part D
	(2)Mast cell	Part B Macrophage	Fibroblast	Collagen fibers
C.	Part A	Part B	Part C	Part D
	(3)Macropha	ge Collagen fib	ers Fibrob	olast Mast cell
D.	Part A	Part B	Part C	Part D
	(4)Mast cell	Collagen fibers	Fibroblas	t Macrophage

Answer: C

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12. Which one of the following paris of chemical substances, is correctly categorised ?

A. (1)Calcition and thymosin Thyroid hormones

Β.

(2)Pepsin and prolactin Two digestive enzymes secreted in stomach

C.

(3)Troponin and myosin Complex proteins in striated muscles

D. (4) secret in and rhodopsin Polypeptide hormones

Answer: C



13. Supportive skeletal structures in the human external ears and nose tip

are of

A. Ligament

B. Areolar tissue

C. Bone

D. Cartilage

Answer: D

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14. The four figures (A, B, C and D) given below represent four different

types of animal tissues. Which one of these is correctly identified in the

given options along with its correct location and function ?









A.TissueLocationFunction(1)(B),Glandular epitheliumIntestinesecretion

Β.

Answer: A

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15. The H-zone in the skeletal muscle fibre is dueto

A. The central gap between myosin filaments in the A band.

B. The central gap between actin filaments extending through myosin

filaments in the A band.

C. The extension of myosin filaments in the central portion of the A

band.

D. The absence of myofibrils in the central portion of A band.

Answer: B

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- 16. Choose the correctly matched pair
- (a) Inner lining of salivary ducts- Ciliated epithelium
- (b) Moist surface of buccal cavity- Glandular epithelium
- (c) Tubular parts of nephrons-Cuboidal epithelium
- (d) Inner surface of bronchioles- Squamous epithelium

A. Inner lining of salivary ducts- Ciliated epithelium

B. Moist surface ofbuccal cavity- Glandular epithelium

C. Tubular parts of nephrons-Cuboidal epithelium

D. Jnner surface of bronchioles- Squamous epithelium

Answer: C

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17. The guts of cow and buffalo possess

A. Cyanobacteria

B. fucus spp.

C. Chlorella spp.

D. Methanogens

Answer: D

18. Which type of tissue correctly matches with its location ?

A.	Tissue	Location	
	(1)Smooth muscle	Wall of intestine	
п	Tissue	Location	
в.	(2)Areolar tissue	Tendons	
c	Tissue	Location	
C.	(3)Transitional tiss	sue Tip nose	
D.	Tissue	Location	
	(4)Cuboidal epithli	um Lining	

Answer: A

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19. Earthworms have no skeleton but during burrowing, the anterior end

becomes turgid and acts as a hydraulic skeleton. It is due to

A. gut peristalsis

B. setae

C. coelomic fluid

D. blood

Answer: C

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20. Which one of the following correctly describes the location of some body parts in the earthworm (Pheretima) ?

A. Two pairs of accessory glands in 16-18 segments

B. Two pairs of testes in 10th and 11th segments

C. Four pairs of spermathecae in 4-7 segments

D. One pair of ovaries attached at intersegmental septum of 14th and

15 th segments.

Answer: B

21. If a live earthworm is pricked with a needle on its outer surface without damaging its gut, the fluid that comes out is

A. Slimy mucus

B. Excretory fluid

C. Coelomic fluid

D. Haemolymph

Answer: C

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22. Which of the following is correct for the common cockroach ?

A. The food is ground by mandibles and gizzard

B. Malpighian tubules are excretory organs projecting out from the

colon

C. Oxygen is transported by haemoglobin in blood

D. Nitrogenous excretory product is urea

Answer: A



23. One very special feature in the earthworm is that

A. It has a long dorsal tubular heart

B. Fertilisation of eggs occurs inside the body

C. The typhlosole greatly increases the effective absorption area of

the digested food in the intestine

D. The S-shaped state embedded in the integument are the defensive

weapons used against the enemies

Answer: C

24. What external changes are visible after the last moult of a cockroach

nymph?

A. Mandibles become harder

B. Anal cerci develop

C. Both fore wings and hind wings develop

D. Labium develops

Answer: C

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25. Choose the correctly matched pair

A. Tendon-Specialized connective tissue

B. Adipose tissue-Dense connective tissue

C. Areolar tissue-Loose connective tissue

D. Cartilage-Loose connective tissue

Answer: D



26. Which of the following characteristics is mainly responsible for diversification of in-sects on land ?

A. Eyes

B. Segmentation

C. Bilateral symmetry

D. Exoskeleton

Answer: D



27. In male cockroaches, sperms are stored in which part of the

reproductive system?

A. Testes

B. Vas deferens

C. Seminal vesicles

D. Mushroom glands

Answer: C