

Yakeen NEET 2.0 2026

Practice Sheet

Zoology By Samapti Sinha Ma'am

Structural Organization in Animals

Q1 "Contains loosely arranged cells and fibres in a semi-fluid ground substance." This statement is valid for;

- (A) striated muscle
- (B) areolar tissue
- (C) stratified epithelium
- (D) myelinated nerve fibres

Q2 Identify the tissue shown in the diagram and match with its characteristics and its location.



- (A) Skeletal muscle, shows striations and closely attached with the bones of the limbs.
- (B) Smooth muscles, show branching, found in the walls of the heart.
- (C) Cardiac muscles, branched muscles, found in the walls of the heart.
- (D) Striated muscles, tapering at both-ends, attached with the bones of the ribs.

Q3 Which type of tissue is found in inner lining of blood vessels?

- (A) Collagen fibres
- (B) Columnar epithelium
- (C) Squamous epithelium
- (D) Areolar connective tissue

Q4

Choose the **correct** statement from the following.

- (A) The mouth parts of cockroach consist of labrum (lower lip), labium (upper lip) and mandible, maxillae.
- (B) Only prothoracic and mesothoracic segments of cockroach possess walking legs.
- (C) Forewings (Prothoracic) called tegmina.
- (D) Hind wings are transparent and membranous.

Q5 A mature female frog can lay_____ at a time.

- (A) 25 to 30 ova
- (B) 250 to 300 ova
- (C) 2500 to 3000 ova
- (D) 25000 to 30000 ova

Q6 To which class and phylum does *Periplaneta* belong?

- (A) Class - Insecta; Phylum - Annelida
- (B) Class - Reptilia; Phylum - Arthropoda
- (C) Class - Amphibians; Phylum - Annelida
- (D) Class - Insecta; Phylum - Arthropoda

Q7 Which of the following statements is/are **incorrect**?

- I. Endocrine glands have ducts.
- II. Compound epithelium covers moist surface of skin.
- III. All connective tissue cells secrete fibres of structural proteins called elastin.
- IV. The cells of connective tissues except blood secrete fibres.

- (A) I and II
- (B) II and III
- (C) I and III
- (D) I, II and III

Q8 Which of the following is **correct** match for epithelium and its characters?



- (A) Simple epithelium - Composed of a single cell.
- (B) Simple epithelium - Made up of a single thin layer of flattened cells with regular boundaries.
- (C) Compound epithelium - Consist of two or more cell layers and has protective function.
- (D) Compound epithelium - This tissue has free surface which either face body fluids or environment.

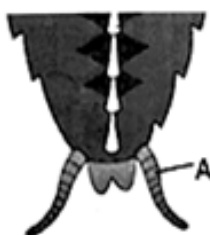
Q9 Select the **correct** option after carefully reading the statements wrt reproductive system of a male frog.

Statement I: Testes are adhered to the upper part of the kidneys by a double fold of peritoneum called mesorchium.

Statement II: Vasa efferentia are 50 to 60 in number and enter kidneys on their side.

- (A) Both Statement I and Statement II are correct.
- (B) Statement I is correct, but Statement II is incorrect.
- (C) Statement I is incorrect, but Statement II is correct.
- (D) Both Statement I and Statement II are incorrect.

Q10 Which of the following is the **correct** statement of the structure labelled 'A' in the diagram?



- (A) A pair of anal styles absent in females.
- (B) A pair of anal cerci, arise from 10th segment present in both the sexes.
- (C) Phallomere, external genitalia of male.
- (D) Ovipositor in female.

Q11 What is the name of the special venous connection between the liver and intestine in frogs?

- (A) Hepatic portal system
- (B) Renal portal system
- (C) Cardiovascular connection
- (D) Intestinal venous pathway

Q12 Assertion (A): In frogs, brain is enclosed in a bony structure called the brain box (cranium). The brain is divided into fore brain, mid brain and hind brain.

Reason (R): In frogs, forebrain includes olfactory lobes, paired cerebral hemispheres and paired diencephalon.

- (A) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
- (B) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
- (C) **Assertion (A)** is true, but **Reason (R)** is false.
- (D) **Assertion (A)** is false, but **Reason (R)** is true.

Q13 Fertilised eggs in *P. americana* are encased in capsules called X. It is a dark reddish to blackish brown capsule, about Ymm long.

- (A) X- oothecae, Y- 3
- (B) X- spermatophores, Y- 8
- (C) X- oothecae, Y- 8
- (D) X- spermatophores, Y- 3

Q14 Which of the following statements is **incorrect** about squamous epithelium?

- (A) It consists of a single thin layer of flattened cells with irregular boundaries.
- (B) It do not take part in secretion and absorption.
- (C) It is found on the walls of the nephron.
- (D) It is involved in many functions like forming a diffusion boundary.

Q15 Given below are two statements:

Statement I: Compound epithelium play major role in absorption and secretion.

Statement II: Compound epithelium is found in the stomach lining.



In the light of the above statements, choose the most appropriate answer from the options given below:

- (A) Statement I is correct but Statement II is incorrect.
- (B) Statement I is incorrect but Statement II is correct.
- (C) Both Statement I and Statement II are correct.
- (D) Both Statement I and Statement II are incorrect.

Q16 Fibroblasts, macrophages and mast cells are present in;

- (A) tissue which is present in pinna.
- (B) tissue in which cells and fibres are loosely arranged.
- (C) tissue which store nutrients.
- (D) glandular epithelium.

Q17 Match **List-I** with **List-II** to find out the **correct** option.

	List-I		List-II
A.	Malpighian Tubules	(I)	Transparent, membranous, help in flight
B.	Hepatic caecae	(II)	Present at the junction of midgut and hind gut
C.	Tegmina	(III)	Secrete Digestive juices
D.	Hind wings	(IV)	Opaque, dark and leathery

- (A) A-I, B-II, C-III, D-IV
- (B) A-II, B-I, C-III, D-IV
- (C) A-II, B-III, C-IV, D-I
- (D) A-II, B-III, C-I, D-IV

Q18 Consider the following statements about the connective tissue. Which of the statement given below are **incorrect**?

- I. Their special function is linking and supporting the other organs and tissues of the body.
- II. It is the most abundant type of animal tissue.
- III. Blood is a specialised connective tissue which contains collagen.
- IV. The cells of connective tissue secrete mucous.

- (A) I and II
- (B) II and III
- (C) III and IV
- (D) I, II, III and IV

Q19 Identify *A*, *B* and *C* in the given diagram of adipose tissue.



- (A) A-Cytoplasm, B-Nucleus, C-Cell wall
- (B) A-Fat storage area, B-Mast cell, C-Plasma membrane
- (C) A-Cell fluid, B-Collagen fibres, C-Plasmalemma
- (D) A-Fat storage area, B-Nucleus, C-Plasma membrane

Q20 Select the **incorrect** match.

- (A) Adipocytes – Fat storing cells
- (B) Chondrocytes – Secrete matrix which is organised into lamellae
- (C) Osteocytes – Present in spaces called lacunae
- (D) Erythrocytes – Cells carrying oxygen transporting pigment in blood

Q21 Intercalated discs are found;

- (A) between neurons.
- (B) in cardiac muscles.
- (C) in striped muscles.
- (D) at the junction of muscles and nerves.



Q22 Read the following statements and choose the **correct** option.

- A. Blood cells secrete fibres of structural proteins called collagen or elastin.
- B. Neuroglial cells protect and support the nephrons.
- C. Osteocytes are present in spaces called lacunae.
- D. Striated muscles fibres are bundled together in parallel fashion.
- E. Biceps are involuntary and striated.

- (A) Only C and D are incorrect.
- (B) Only B and D are incorrect.
- (C) Only A and C are incorrect.
- (D) Only A, B and E are incorrect.

Q23 Read the following statements and choose the answer.

- I. Gap junctions cement adjacent cells together.
- II. Areolar tissue contains fibroblasts, macrophages and mast cells.
- III. Tight junctions facilitate the cells to communicate with each other.
- IV. Adhering junction help to stop substances from leaking across tissues.
- V. Cells of connective tissue except blood secrete fibres of structural proteins called elastin.

- (A) Only I, II, and III are incorrect.
- (B) Only I, III and IV are incorrect.
- (C) Only III and V are incorrect.
- (D) Only I, II and V are incorrect.

Q24 **Statement I:** In Cockroach, gizzard has hard chitinous teeth.

Statement II: Mouth of cockroach can not cut down the food into small pieces.

- (A) Statement I and Statement II both are correct.
- (B) Statement I is correct, but Statement II is incorrect.
- (C) Statement I is incorrect, but Statement II is correct.
- (D) Statement I and Statement II both are incorrect.

Q25

Which one is a specialised connective tissue among these?

- (A) Epithelium
- (B) Bone
- (C) Areolar tissue
- (D) Fibroblasts

Q26 Match **List I** with **List II** and choose the **correct** option.

List - I		List II	
(A)	Hibernation	(I)	Winter sleep
(B)	Camouflage	(II)	Ability to change the colour, to hide from the enemies.
(C)	Poikilotherm	(III)	Cold blooded
(D)	Aestivation	(IV)	Summer sleep

- (A) A-IV, B-III, C-II, D-I
- (B) A-II, B-III, C-I, D-IV
- (C) A-I, B-II, C-III, D-IV
- (D) A-III, B-I, C-II, D-IV

Q27 Which of the following statements is associated with epithelium?

- (A) Cells are compactly packed with little intercellular matrix.
- (B) Cells are loosely packed with large intercellular matrix.
- (C) It is highly vascularised.
- (D) It is a supporting tissue.

Q28 Which of the following statement is/are **correct** in relation with epithelial tissue?

- I It helps in protection and enzyme secretion.
- II It helps to increase surface area of the intestine.
- III It helps in absorption and diffusion.
- IV It helps in locomotion.
- (A) Only IV
- (B) Only II
- (C) Only I, II and III
- (D) Only II and III only

Q29 Read the following statements and choose the **correct** option.

- i. Frog respire in water by skin (cutaneous respiration).



- ii. In frog, lymphatic system consists of lymph, lymph channels and lymph nodes.
- iii. In frogs, during aestivation and hibernation gaseous exchange takes place through lungs only.
- iv. Female frogs can be distinguished by the presence of sound producing vocal sacs and also a copulatory pad on the first digit of the fore limbs which are absent in male frogs.

- (A) i and ii correct only
- (B) iii and iv correct only
- (C) i and iii incorrect
- (D) i, ii, iii, iv correct

- Q30** Which of the following is **correct** w.r.t. gastric caecae of cockroach?
- (A) 6-8 blind tubules at the junction of crop and gizzard which eliminate wastes from haemolymph.
 - (B) 100-150 thin yellow tubules at the junction of foregut and midgut to eliminate wastes from haemolymph.
 - (C) 6-8 blind tubules at the junction of gizzard and midgut to secrete digestive enzymes.
 - (D) 6-8 blind tubules at junction of midgut and ileum to secrete digestive enzymes.
- Q31** All the given statements are correct, **except**.
- (A) Among cell junctions, adhering junctions help to stop substances from leaking across a tissue.
 - (B) Stomach and intestine of our body has columnar epithelium.
 - (C) Surface of skin is impervious to water because it is covered by stratified keratinized squamous epithelium.
 - (D) The ciliated epithelial cells are required to move particles or mucus in a specific direction. In humans, these cells are mainly present in bronchiole and fallopian tube.
- Q32** Identify the **correctly** matched pair w.r.t. *Periplaneta*.

- (A) Metathoracic wings – Hindwings that are opaque, dark and leathery.
- (B) Circulatory system – Haemolymph composed of colourless plasma and haemocytes.
- (C) Excretory system – Malpighian tubules drain urea into hindgut when availability of water is high.
- (D) Respiratory system – Trachea opens through ten pairs of tracheoles.

- Q33** Select the **correct** sequence of organs in the alimentary canal of the frog starting from the mouth.

- (A) Pharynx → Oesophagus → Gizzard → Crop → Ileum → Colon → Rectum
- (B) Pharynx → Oesophagus → Ileum → Crop → Gizzard → Colon → Rectum
- (C) Buccal cavity → Pharynx → Oesophagus → Stomach → Intestine → Rectum → Cloaca
- (D) Buccal cavity → Pharynx → Oesophagus → Stomach → Intestine → Cloaca → Rectum

- Q34** Tendons, which attach skeletal muscle to bone are made up of:

- (A) dense regular connective tissue.
- (B) dense irregular connective tissue.
- (C) areolar tissue.
- (D) adipose tissue.

- Q35** Cardiac muscle is structurally different from smooth muscle because it;

- (A) is branched.
- (B) is involuntary.
- (C) has a single nucleus.
- (D) does not fatigue fast.

- Q36** Choose the **incorrect** statement about skeletal muscles.

- I. Tissues are closely attached to bones.
- II. A sheath of tough connective tissue encloses several bundles of muscles fibres.
- III. These are involuntary in their action.
- IV. These are present in the blood vessels.
- (A) I and II only
- (B) II and III only



(C) III and IV only

(D) I and IV only

Q37 Read the following statements and answer the question.

- (i) They have a hard and non-pliable ground substance rich in calcium salts and collagen fibres.
 - (ii) They provide support and protection for softer tissues and organs.
 - (iii) Osteocytes are present in the spaces called lacunae.
 - (iv) They also interact with skeletal muscles attached to them to bring about movements.
- Which of the following type of tissue is being described by above statements?

- (A) Cartilage
- (B) Bone
- (C) Blood
- (D) Neurons

Q38 'Frogs exhibit sexual dimorphism.'

To support the statement, choose a particular option.

- (A) Male frogs have copulatory pad on the fourth digit of the forelimbs.
- (B) Male frogs have croaking sound producing vocal sacs.
- (C) Female frogs have copulatory pad on the fourth digit of the forelimbs.
- (D) Both (A) and (B)

Q39 The circulatory system of *Rana tigrina* consists of:

- I. blood flows through a closed network of blood vessels.
- II. composed of heart, blood vessels, blood, lymph, lymph channels and lymph nodes.
- III. a triangular sinus venosus of heart receives deoxygenated blood first.
- IV. ventricle opens into conus arteriosus on the dorsal side of the heart.
- V. pleura.

True

False

(A) I, II, III

IV, V

(B) I, II, IV, V

III

(C) I, II, V

III, IV

(D) I, II

IV, III, V

Q40 Read the following statements w.r.t. *Periplaneta americana*.

- (a) Entire body is covered by a hard calcareous exoskeleton.
- (b) Head is triangular and lies anteriorly at right angle to the longitudinal axis of body.
- (c) A pair of walking legs arise from each thoracic segment.
- (d) The abdomen in both male and female consists 10 segments.

How many of the given statements are **correct**?

- (A) One
- (B) Two
- (C) Three
- (D) Four

Q41 Which of the following is **not** correctly matched?

- (A) Cartilage – Tip of nose
- (B) Blood – Fluid connective tissue
- (C) Tendons – Connects bone to bone
- (D) Adipose tissue – Peripheral nucleus

Q42 Assertion (A): Frogs maintain ecological balance.

Reason (R): Frogs serves as an important link of food chain and food web in the ecosystem.

- (A) Both **Assertion (A)** and **Reason (R)** are the true, and **Reason (R)** is a correct explanation of **Assertion (A)**.
- (B) Both **Assertion (A)** and **Reason (R)** are the true, but **Reason (R)** is not a correct explanation of **Assertion (A)**.
- (C) **Assertion (A)** is true, but **Reason (R)** is false.
- (D) **Assertion (A)** is false, but **Reason (R)** is true.

Q43 Characteristics of smooth muscle fibers are;

- (A) spindle-shaped, unbranched, unstriated, uninucleated and involuntary.
- (B) spindle-shaped, unbranched, unstriated, multinucleated and involuntary.
- (C) cylindrical, unbranched, unstriated, multinucleated and involuntary.
- (D) cylindrical, unbranched, striated, multinucleated and voluntary.

Q44



[Android App](#)

| [iOS App](#)

| [PW Website](#)

Which of the following given statements is/are **false**?

- (i) Neuroglia makes up more than one-half of the volume of neural tissue in our body.
- (ii) Neuroglia protects and supports neurons.
- (iii) When a neuron is suitably stimulated, an electrical disturbance is generated which swiftly travels along its cytosol.
- (iv) The arrival of the disturbance at the neuron's endings triggers stimulation or inhibition of adjacent neurons or other cells.

- (A) (i) and (iv)
- (B) (ii) and (iii)
- (C) (iii) only
- (D) (iv) only

Q45 On an average, in *P. americana* females produce __X__ oothecae, each containing __Y__ eggs and a mature female frog can lay __Z__ ova at a time.

- (A) X-5 to 8, Y-10 to 14, Z-2000
- (B) X-5 to 8, Y-2300, Z-14 to 16
- (C) X-5 to 8, Y-5 to 10, Z-2300
- (D) X-9 to 10, Y-14 to 16, Z-2500 to 3000



Answer Key

Q1 (B)
Q2 (C)
Q3 (C)
Q4 (D)
Q5 (C)
Q6 (D)
Q7 (D)
Q8 (C)
Q9 (B)
Q10 (B)
Q11 (A)
Q12 (C)
Q13 (C)
Q14 (C)
Q15 (D)
Q16 (B)
Q17 (C)
Q18 (C)
Q19 (D)
Q20 (B)
Q21 (B)
Q22 (D)
Q23 (B)

Q24 (B)
Q25 (B)
Q26 (C)
Q27 (A)
Q28 (C)
Q29 (A)
Q30 (C)
Q31 (A)
Q32 (B)
Q33 (C)
Q34 (A)
Q35 (A)
Q36 (C)
Q37 (B)
Q38 (B)
Q39 (A)
Q40 (C)
Q41 (C)
Q42 (A)
Q43 (A)
Q44 (C)
Q45 (D)



[Android App](#)

| [iOS App](#)

| [PW Website](#)