

# Structural Organization in Animals (Animal Tissue)

- 1. Assertion (A):** Frogs undergo aestivation & hibernation  
**Reason (R):** Frogs take shelter in deep burrows to protect themselves from extreme heat & cold.

  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 2. Assertion (A):** The digits for forelimbs of frog possess a web.  
**Reason (R):** The webs found in the digits of forelimbs help in swimming.

  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 3. Assertion (A):** Frogs are considered important for mankind.  
**Reason (R):** They eat insects and protect the crops.

  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 4. Assertion (A):** The alimentary canal of a frog is short.  
**Reason (R):** Frog is carnivorous.

  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 5. Assertion (A):** Frogs have a short alimentary canal.  
**Reason (R):** They are carnivores.

  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 6. Assertion (A):** In frogs, external fertilization takes place.  
**Reason (R):** Frog is an aquatic amphibian.

  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 7. Assertion (A):** Frogs help maintain ecological balance.  
**Reason (R):** The species which maintain ecological balance serve as an important link in the food chain and food web.

  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false
- 8. Assertion (A):** In frog, the alimentary canal is short, and length of intestine is reduced.  
**Reason (R):** Frog is carnivorous in nature.

  - (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
  - (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
  - (3) (A) is true but (R) is false
  - (4) Both (A) and (R) are false



9. **Assertion (A):** Frog shows phenomenon of hibernation

**Reason (R):** Frogs are poikilothermic animals

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

10. **Assertion (A):** Tendons and ligaments are dense regular connective tissue.

**Reason (R):** Dense regular connective tissue contains collagen fibres and fibroblast cells.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

11. **Assertion (A):** Development in cockroach is also termed as paurometabolous development.

**Reason (R):** In cockroach nymphal stage directly changes into adult without moulting.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

12. **Assertion (A):** Rana tigrina is cold-blooded or poikilotherm.

**Reason (R):** Its body temperature varies with the temperature of the environment. In the light of the above statements choose the correct answer from the options given below:

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

13. **Assertion (A):** Frogs help maintain ecological balance.

**Reason (R):** Frogs serve as an important link in the food chain and food web in the ecosystem. In the light of the above statements choose the correct answer from the options given below:

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

14. **Assertion (A):** The alimentary canal in frogs is short.

**Reason (R):** Frogs are carnivores.

In the light of the above statements choose the correct answer from the options given below:

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

15. **Assertion (A):** Frogs have the capability to change the colour and resemble their surroundings.

**Reason (R):** They are poikilothermous animals.

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

16. **Assertion (A):** The skin of a frog is always kept moist and has a mucus

**Reason (R):** Frogs respire through the skin as well. In the light of the above statements choose the correct answer from the options given below:

- (1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
- (2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
- (3) (A) is true but (R) is false
- (4) Both (A) and (R) are false

**Directions:** In the following questions, a statement of assertion is followed by a statement of reason.

Mark the correct choice as:

- (a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) If Assertion is true but Reason is false.
- (d) If both Assertion and Reason are false.

17. **Assertion :** The squamous epithelium is made of a single thin layer of flattened cells with irregular boundaries.

**Reason :** They are found in walls of blood vessels and air sacs of wings.

18. **Assertion:** Connective tissues are most abundant and widely distributed in the body of complex animals.

**Reason:** Connective tissues link and support other tissues or organs of the body

19. **Assertion:** Tendon is present in all bone joints.

**Reason:** Tendon connects the bones together and holds them in position.

20. **Assertion:** There is hepatic portal system in frogs.

**Reason:** It is venous connection between liver and intestine in frog.

21. **Assertion:** Blood glands are present in earthworm.

**Reason:** Earthworm has an open type of blood vascular system.

22. **Assertion:** Malpighian tubules are responsible for excretion in cockroach.

**Reason:** Each Malpighian tubule is lined by nonciliated columnar cells.

23. **Assertion:** Frog has short alimentary canal.

**Reason:** Frogs are carnivores.

24. **Assertion:** Stomach and intestine of our body has columnar epithelium.

**Reason:** Columnar epithelium helps in secretion and absorption.

25. **Assertion:** Cell junctions are present in the epithelium and other tissues.

**Reason:** Among cell junctions, adhering junctions help to stop substances from leaking across a tissue.

26. **Assertion:** Mast cells help in body defence.

**Reason :** Mast cells phagocytose & destroy microbes.

27. **Assertion:** Total count of RBC comes out to be very low in polycythemia.

**Reason:** Number of erythrocytes get reduced in the condition of polycythemia.

28. **Assertion:** Haemoglobin is said to be a conjugated protein.

**Reason:** It is composed of a protein called haem and a non protein iron porphyrin complex called globin.

29. **Assertion:** Muscle cells are also called myofibrils.

**Reason:** Muscle cells are very thick and elongated.

30. **Assertion:** Thigh muscles can get tired but not the muscles of ventricle of heart.

**Reason:** Muscles of thigh are voluntary whereas that of heart are involuntary muscles.

31. **Assertion:** Neuroglial cells protect and support the neurons.

**Reason:** When neuron is suitably stimulated, an electrical disturbance is generated which travels along its cytoplasm.

### ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ans.	1	1	1	1	1	1	1	1	1	2	3	1	1	1	2	2

17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.		
b	b	d	a	c	c	a	a	c	c	d	c	d	b	c		

