

BIOLOGY

BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

ORGAN AND ORGAN SYSTEMS IN ANIMALS

Textbook Evaluation Questions Solved

1. The clitellum is a distinct part in the body of earthworm *Lampito mauritii*, it is found in?

A. Segments 13 - 14

B. Segments 14-17

C. Segments 12-13

D. Segments 14-16

Answer: B



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2. Sexually, earthworms are

- A. Sexes are separate
- B. Hermaphroditic but not self-fertilizing
- C. Hermaphroditic and self-fertilizing
- D. Parthenogenic

Answer: B



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3. State whether the statement is true or false.

To sustain themselves, earthworms must guide their way through the soil using their powerful muscles. They gather nutrients by ingesting organic matter and soil, absorbing what they need into their bodies.

The two ends of the earthworm can equally ingest soil.

a. True

b. False

B.

C. Surrounding gizzard, eight.

D. t the junction of colon and rectum, eight

Answer: A



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4. The head region of Cockroach __pairs of __and __shaped eyes occur.

A. One pair, sessile compound and kidney shaped

B. Two pairs, stalked compound and round shaped

C. Many pairs, sessile simple and kidney shaped

D. Many pairs, stalked compound and kidney shaped

Answer: A



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5. The location and numbers of malpighian tubules in Periplaneta.

A. At the junction of midgut and hindgut,
about 150

B. At the junction of foregut and midgut,
about 150.

C. Surrounding gizzard, eight.

D. t the junction of colon and rectum, eight

Answer: A



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6. The type of vision in Cockroach is

- A. Three dimensional
- B. Two dimensional
- C. Mosaic
- D. Cockroach do not have vision

Answer: C



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7. How many abdominal segments are present in male and female Cockroaches?

A. 10,10

B. 9,10

C. 8,10

D. 9,9

Answer: A



8. Which of the following have an open circulatory system?

A. Frog

B. Earthworm

C. Pigeon

D. Cockroach

Answer: D



9. Buccopharyngeal respiration in frog:

A. is increased when nostrils are closed

B. stops when there is pulmonary
respiration

C. is increased when it is catching fly

D. stops when mouth is opened.

Answer: B



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10. Kidney of frog is

A. Archinephros

B. Pronephros

C. Mesonephros

D. Metanephros \

Answer: C



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11. Presence of gills in the tadpole of frog indicates that

- A. fishes were amphibious in the past
- B. fishes evolved from frog-like ancestors
- C. frogs will have gills in future
- D. frogs evolved from gilled ancestor

Answer: D



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12. Choose the wrong statement among the following:

- A. In earthworm, a pair of male genital pore is present,
- B. Setae help in locomotion of earthworms.
- C. Muscular layer in the body wall of earthworm is made up of circular muscles and longitudinal muscles.
- D. Typhlosole is part of the intestine of earthworm.

Answer: A



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13. Which of the following are the sense organs of Cockroach?

A. Antennae, compound eyes, maxillary palps, anal cerci

B. Antennae, compound eye, maxillary palps and tegmina

C. Antennae, ommatidia, maxillary palps,
stomum and anal style

D. Antennae, eyes, maxillary palps, tarsus of
walking legs and coxa

Answer: C



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14. What characteristics are used to identify
the earthworms?





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15. What are earthworm casts?



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16. How do earthworms breathe?



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17. Why do you call cockroach a pest?





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18. Comment on the functions of alary muscles?



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19. Name the visual units of the compound eyes of cockroach.



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20. How does the male frog attracts the female for mating?



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21. Describe the types of respiration seen in frog.



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22. Differentiate between peristomium and prostomium in earthworm.



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23. Give the location of clitellum and spermathecal openings in *Lampito mauritii*.



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24. Differentiate between tergum and a sternum.



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25. Head of cockroach is called Hypognathous.
Why ?



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26. What are the components of blood in frog?



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27. Draw a neat diagram of digestive system of frog.



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28. Explain the male reproductive system of frog.



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In Text Questions Solved

1. How do earthworms sense activity in their habitat without eyes, ears or a nose?



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2. Respiratory system of cockroach is formed of spiracles and tracheal interconnections. Why is it said to be more efficient than that of earthworm? Why inspiration of cockroach is

said to be a passive process while it is an active process in man?



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3. Arthropod eyes are called compound eyes because they are made up of repeating units, the ommatidia, each of which functions as a separate visual receptor. What is the difference between compound eyes and simple eyes? Why is mosaic vision with less resolution seen in cockroach?



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4. Why three chambered heart of frog is not as efficient as the four chambered heart of birds and mammals?



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Entrance Examination Questions Solved

1. The body cells in cockroach discharge their nitrogenous waste in the haemolymph mainly

in the form of

A. Calcium carbonate

B. Ammonia

C. Potassium urate

D. Urea

Answer: C



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2. Frog's heart when taken out of the body continues to beat for sometime. Select the best option from the following statements.

A. Frog is a poikilotherm

B. Frog does not have any coronary circulation

C. Heart is "myogenic" in nature.

D. Heart is autoexcitable Options

Answer: D





Additional Questions Solved | Multiple Choice Questions Choose The Correct Answer

1. Which of the following is found in upper layers of the soil? (a) *Perionyx exavatus*

A. *Perionyx exavatus*

B. *Octochastonathurstoni*

C. *Lampito mauritii*

D. *Eudrius eugeniae*

Answer: C



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2. The body setae of earthworms are concerned with

A. sensory function

B. protection

C. excretion

D. locomotion

Answer: D



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3. In earthworm the female genital aperture lies on the ventral side in the __segment.

A. 18^{th}

B. 10^{th}

C. 14^{th}

D. 8^{th}

Answer: C



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4. In earthworm the female genital aperture lies on the ventral side in the __segment.

A. 18th

B. 10th

C. 14th

D. 8th

Answer: A



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5. I earthworm, what is present in the 6th segment?

A. oesophagus

B. intestine

C. gizzard

D. anus

Answer: C



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6. Which of the following is not found in the prostomium?

- A. Tactile receptors
- B. chemoreceptors
- C. Thermoreceptors
- D. Olfactory receptors

Answer: D



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7. In protandrous condition, what is correct?

A. ova mature earlier than sperms

B. sperms mature earlier than ova

C. both sperms and ova mature at the
same time

D. both sperms and ova do not mature at all

Answer: B



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8. The mouth parts of cockroach are of.....type.

A. ating and chewing

B. chewing and sicking

C. sucking and chewing

D. biting and chewing

Answer: D



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9. Which of the following is right?

A. Anal styles are present only in male cockroach.

B. Anal styles are present in both male and female cockroaches

C. Anal cerci are present in male cockroach only

D. Anal cerci are present in female cockroach only

Answer: A



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10. Which is responsible for circulation of blood in cockroach?

A. piracular muscles

B. alary muscles

C. hacmocytes

D. ostia

Answer: B



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11. Cockroach excretes.. as the nitrogenous waste from the body.

A. urea

B. ammonia

C. uric acid

D. creatinine

Answer: C



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12. In cockroach, malphigian tubules are concerned with

A. digestion

B. respiration

C. cxcrction

D. secretion of fluids

Answer: C



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13. The secretion of collateral glands in cockroach is to produce.....

A. ova

B. sperms

C. pigments

D. cothoea

Answer: D



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14. Which of the following is not a feature of frog?

A. presence of webbed dee

B. absence of teeth

C. smooth and moist skin

D. slender body

Answer: B



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15. When the frog is in water..... respiration occurs.

A. pulmonary

B. gill

C. buccal

D. cutaneous

Answer: A



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16. In frog, aortic arch divides into three aortic arches namely

A. carotid, systemic and sinus venosus

B. carotid, systemic and pulmo cutaneous

C. carotid, dorsal aorta and pulmo cutaneou

D. carotic, truncous arteriosus and pulmo cutaneous

Answer: B



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17. Frogs excrete..... and hence they are called

A. uric acid

B. urecotelic

C. ammonia ammonotelic

D. urea, urotelic

Answer: C



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18. Which of the following change happens during metamorphosis of tadpole?

- A. gills disappear and lungs develop
- B. lungs disappear and gills develop
- C. gills remain as such
- D. lungs disappear

Answer: A



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Additional Questions Solved li Fill In The Blanks

1. are the earthworms found in deeper layers of the soil.



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2. The segments of the earthworm are.....



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3. The first segment of earthworm is called



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4. The last segment of the earthworm is called.....



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5. The swollen segments 14 to 17 in mature earthworm is called the.....



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6. The body setae are absent in the, last segments and allatum.



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7. The..... are present from the 10h segment onwards in the earthworm



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8. Nephrogenous eliminate..... Wastes.



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9. found in the coelomic fluid of earthworm plays an important role in regeneration, immunity and wound healing.
An



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10. The dorsal wall of the intestine of earthworm is folded into the cavity as the



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11. In earthworm, thevessel has no valves and non-contractile.



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12. In earthworms excretion is effected by



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13. nephridia are present in the sth.gih segments



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14. Special cells on the coelomic wall of the intestine called are excretory in

function in earthworms.



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15. In earthworms, the male genital aperture contains two pairs of..... for copulation.



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16. The secretion of the prostate gland serves to cement the spermatozoa into bundles known as



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17. are present in the 7th, 8th and 9th segment of earthworm.



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18. The process of producing compost using earthworm is called



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19. The first pair of wings of cockroach is called

.....



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20. In both male and female cockroach, genital apertures are surrounded by sclerites called

.....



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21. In the mouth parts of cockroach __helps in grinding of food.



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22. In between the foregut and midgut of cockroach are present



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23. In between the midgut and the hindgut of cockroach, are present which help in



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24. The respiratory organs of cockroach are



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25. The trachea of cockroach open through 10 pairs of small holes called.....



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26. The opening and closing of spiracles are regulated by. ..



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27. The blood of cockroach is called as.....



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28. The blood from the sinuses enters the heart of cockroach through the



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29. In cockroach, there is a accessory. at the base of each antenna which also pumps blood



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30. The receptors are located in the antenna, maxillary palps and cerci.



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31. are found on the first four tarsal segments on the legs of cockroach.



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32. The receptor chordotonal is found on the which respond to air or earth borne vibrations



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33. The eye of cockroach is made up of simple eyes called the.....



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34. The collateral glands present behind the ovaries of female reproductive system cockroach produce.....



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35. The young cockroach are called



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36. The temperature of the frog varies with the varying environmental temperature and hence it is called



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Additional Questions Solved iii Answer The Following Questions

1. Classify earthworms based on their ecological strategies.



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2. Explain the morphology of earthworm, *Lampito mauritii*.



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3. Explain the internal structure of the earthworm.



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4. Write a note on coelom of earthworm.



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5. Give an detailed account on Earthworm digestive system with diagram.



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6. What is typhlosole? Mention its function.



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7. Explain the nervous system of earthworm.



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8. Explain the receptors in earthworm.



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9. Explain the excretory system of the earthworm.



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10. Explain the male reproductive system of the earthworm.



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11. Explain the female reproductive system of earthworm



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12. Why is self fertilization is not possible in earthworm?



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13. Write a short note on the life cycle of earthworm.



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14. Why earthworm is called as farmer's friend?





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15. Write a short note on Vermitech and Vermiculture, Vermicomposting, Vermiwash.



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16. Explain the morphology of cockroach.



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17. Explain the digestive system of cockroach.



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18. Explain the circulatory system of cockroach.



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19. Explain the nervous system of cockroach



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20. Write about the sense organs of cockroach.



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21. How will you differentiate male and female cockroach?



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22. Explain excretion in cockroach.



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23. Explain the male reproductive system of cockroach.



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24. Explain the female reproductive system in cockroach.



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25. Write a short note on ootheca.



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26. Explain the morphological features of frog.



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27. Differentiate between Frog and Toad.



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28. Explain the digestive system of frog.



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29. Explain the circulatory system of frog.



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30. Explain the nervous system of frog.



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31. Explain the structure of brain of frog.



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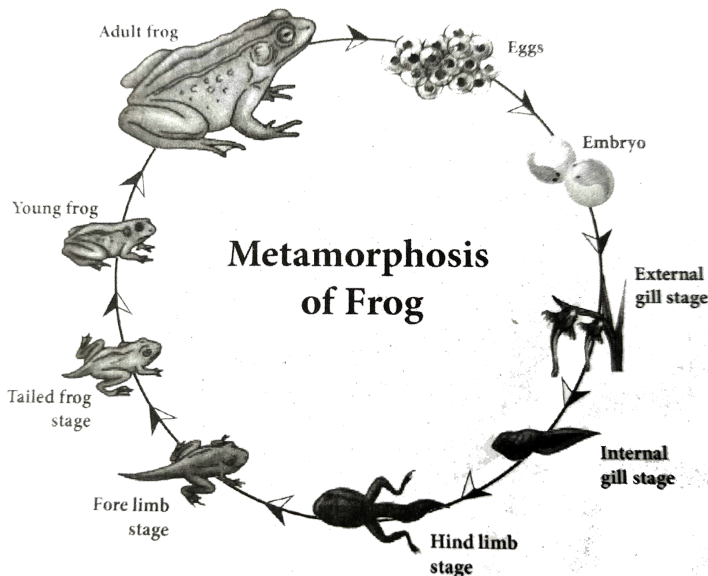
32. Explain the excretory system of Frog.



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33. Within few days of fertilization, the cges hatch into tadpoles. A newly hatched tadpole lives off the yolk stored in its body. It gradually

grows larger and develops three pairs of gills. The tadpole grows and metamorphosis into an air-breathing carnivorous adult frog (Figure). Legs grow from the body, and the tail and gills disappear. The mouth broadens, developing teeth and jaws, and the lungs become functional





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34. Write a note on the economic importance of frog and for what purpose its used as a traditional medicine?



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35. Frog respire through gills, lungs, skin and buccal cavity. Justify.



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