



Attempt questions first; check the separate key afterward. Use labelled diagrams where asked. Give scientific reasons; answer key covers closed questions.

A. Very short answers - 1 mark each

1. Name the vertebrate class of frog.
2. How many chambers does a frog's heart have?
3. Name the common chamber receiving digestive, urinary and reproductive products.
4. Are frogs ectothermic?
5. Name the main nitrogenous waste of an adult frog.
6. Name the excretory organs of frog.
7. How many digits occur on a frog's forelimb and hindlimb?
8. Is fertilisation in the usual frog reproductive cycle external?

B. Short answers / practice - 2 marks each

9. Describe the external body divisions of a frog.
10. Explain adaptations of frog skin for cutaneous respiration.
11. Compare hibernation and aestivation.
12. State two external features distinguishing a male frog.
13. Describe the position and use of the frog's tongue.
14. Trace food through the frog's alimentary canal.
15. State functions of liver, gall bladder and pancreas in frog digestion.
16. Explain the role of intestinal villi in absorption.
17. Compare respiration in water and on land in an adult frog.
18. Explain buccopharyngeal respiration.
19. Describe the chambers and main vessels of the frog's heart.
20. Why is frog circulation termed closed and incomplete double circulation?

C. Application / reasoning - 3 marks each

21. Name the chamber receiving venous blood before the right atrium.
22. Are frog red blood cells nucleated?
23. Explain the role of hepatic and renal portal systems.
24. Describe the location and basic structure of frog kidneys.
25. Compare the roles of ureters in male and female frogs.
26. Outline the frog's central and peripheral nervous systems.
27. Name the visible external structure associated with hearing.
28. Explain the protective role of the nictitating membrane.
29. Trace sperm transport from testes toward the cloaca.
30. Explain why frogs generally lay eggs in water.
31. Compare a tadpole and an adult frog in respiration and body form.

D. Extended practice - 5 marks each

32. Draw and explain the frog's digestive system with accessory glands.
33. Draw the frog's circulatory plan and trace blood through the heart.
34. Compare male and female reproductive systems of frog with labelled diagrams.
35. Explain how frog morphology and physiology together support amphibious life.

ANSWER KEY - Numerical / closed questions

- 1) Amphibia. 2) Three. 3) Cloaca. 4) Yes. 5) Urea. 6) Kidneys. 7) Four and five, respectively. 8) Yes. 21) Sinus venosus. 22) Yes. 27) Tympanum.