

R.K. Vigyan (P.G.) College, Kalwar, Jaipur

**ZOOLOGY (SEM-I) FULL LENGTH PAPER-I**

Sec. A: Choose all 10 questions. Each question carries a mark weight of 2.

- (1) Define the biological concept of species. Define a species. What is the Red Data Book? (2) Define a body cavity? (3) In which animal phylum are flame cells found? By what other name is the bladder worm known? By what stage does *Taenia solani* infect the secondary host? (4) What is an animal called an aberrant host? (5) Write two main characteristics of the class Oligochaeta? (6) Name the excretory organs of the phylum Arthropoda? (7) What is the shell of animals in the phylum Mollusca made of? (8) Name the locomotor organs of a starfish. (9) What is the respiratory organ in *Balenoglossus*? (10) What is the main function of the vascular system? Name two beneficial sponges. What is a gemmule? Name how many types of canal systems are found in sponges?

Sec.- B: Choose any four questions, choosing one from each unit. Each question carries 15 marks.

UNIT-I (1) Explain in detail what is the five-kingdom hypothesis? (2) Describe the body symmetry and body cavity found in animals, giving suitable examples.

UNIT-II (3) Describe what is polymorphism? (4) Describe the life cycle of *Taenia solium*.

UNIT-III (5) Describe the larva of crustaceans. (6) Describe the morphology of peripatus.

UNIT-IV (7) Explain in detail the nervous system in *Pila*. (8) Draw a labelled diagram of the water vascular system and explain its function.

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**ZOOLOGY (SEM-I) FULL LENGTH PAPER-II**

Sec. A: Choose all 10 questions. Each question carries a mark weight of 2.

- (1) Write the full name of Iczn. Who first discovered taxonomy? (2) Name the locomotor organs of protozoa? Name the classes of protozoa. State the basis of classification within protozoa. (3) State the zoological name of the Portuguese soldier? (4) What stage comes before the bladder worm? (5) Differentiate between oligochaeta and polychaeta? (6) What is a mysis larva? (7) What are the organs of a boid? (8) Name any two larvae of Echinodermata? (9) In which class of animals is Aristotle's lantern found? (10) What is the stone canal?

Sec.-B: Choose any 4 questions, choosing 1 from each unit. Each question carries 15 marks.

UNIT-I (1) What is the dynamology? Explain its nomenclature. (2) Explain locomotion and nutrition in Paramecium.

UNIT-II (3) Describe in detail the characteristics and life cycle of Ascaris. (4) Illustrate the structure of Taenia. Describe the reproductive system of Taenia solium.

UNIT-III (5) Write an essay on the nervous system in Nereis. Explain the life cycle of Nereis. (6) Explain direct and indirect development in insects.

UNIT-IV (7) Explain in detail the structures involved in pearl formation. (8) Explain the phylogenetic expansion of Balanoglossus?

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#### ZOOLOGY (SEM-I) HALF LENGTH PAPER-I (UNIT-I & II)

Sec. A: Choose any 5 questions. Each question carries a mark weight of 2.

1. Define classification. Who proposed the concept of the five-kingdom system? Name the five kingdoms. Write the characteristics of fungi. 2. What is taxonomy? 3. Name two phyla with spherisymmetry. How many types of symmetry are there? 4. What are ternary and triploid organisms? 5. Write any two important characteristics of sporozoans? 6. Write any two important characteristics of sporozoans? 7. Write any two important characteristics of sporozoans? 8. What are coral-forming organisms? 9. Name the primary and secondary hosts of Taenia solium? 10. What are parasitic adaptations? Name the filariae in India? Name any four nematode parasites? Write the main characteristics of phylum Nematoda? Give the common name of Enterobius? To which phylum does Ascaris belong? Name the infective stage found in the life cycle of Ascaris? In which body part of the host is Ascaris found? What type of body cavity is found in Ascaris? To which phylum does Ascaris belong? What type of segmented structure is found in Ascaris? What are the sensory organs in Ascaris? Tell the number and function of anal papillae present in Ascaris?

Sec. B Choose any 2 questions, choosing 1 question from each unit. Each question carries 15 marks.

2. UNIT:- I (1) Write notes on (i) Symmetry (ii) Segmental structure (iii) Levels of body organisation (2) Outline the general characters and classification of Protozoa. Write an article on coral reefs. Explain the process of formation and emergence of coral reefs. What is their economic importance? UNIT:- II (3) Write characters and explain

the classification of Phylum Coelenterata. (4) Write notes on parasitic adaptations in Helminthes.

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**ZOOLOGY (SEM-I) HALF LENGTH PAPER-II (UNIT-III & IV)**

Sec. A: Choose any 5 questions. Each question carries a mark of 2.

1. What is the blood vessel system?
2. Name how many classes the phylum Annelida is classified into?
3. Name the largest phylum of invertebrates.
3. 4. What helps zoea to swim in water?
4. 5. Name two characteristics of peripatus.
5. 6. Name the respiratory organ found in animals of the phylum Mollusca.
6. 7. Explain the function of the scutellum of Mollusca.
7. 8. What are the swallowtails of animals of the phylum Echinodermata?
8. 9. Name the different types of respiratory organs of Echinodermata. 10 What is the excretory organ in *Balanoglossus*?
9. Sec. B Choose any 2 questions, choosing 1 from each unit. Each question carries 15 marks.
10. UNIT:- III (1) Explain the classification of Annelida by writing its general characters.  
(2) Explain the nervous system in prawn in detail. Explain the reproductive organs in prawn.
11. UNIT:- IV (3) Explain reproduction in *Asterias*. Explain the life cycle of *Asterias*. (4) Explain the homologies of Chordata and Echinodermata.
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13. ZOOLOGY (SEM-I) QUARTER LENGTH PAPER-I (UNIT-I)
14. Sec. A: Choose any three questions. Each question carries a mark weight of 2.
15. 1. Name how many types of coelom? 2. Name how many types of isoclonus? 3. What is the sol-gel theory related to? 4. How many types of pseudopods are there based on size and shape? Give two examples of pathogenic protozoa? What is Rhizopoda? 5. What is the main basis for classification of the phylum Porifera? 6. Write five major characteristics of Porifera? What type of locomotion does *Paramecium* have? What is *Paramecium*'s nutrition? Name the reproductive organs of protozoa? 7. Members of which class are known as glass sponges? 8. Name one freshwater sponge? 9. Describe the type of canal system found in *Leucosolenia*. 10. Where are porocyte cells found? Draw a labeled diagram of the canal system of Porifera. What type of canal system is found in *Spongilla*? Where are collar cells

found? What is the origin of the canal system in sycon? Name the reproductive organs in sycon? What is osteum? What is the function of osculum? What is spongocyl? What is the canal system called? State two importance of the canal system? What is regeneration in sycon?

16.

17. Sec. B Choose any one question. Each question carries 15 marks.

18.

19. UNIT:-I (1) Write a brief note on embryogenesis. (2) Write the difference between vertebrates and invertebrates. (3) Explain the habitat and morphology of Paramecium and reproduction in Paramecium. (4) Describe the different types of canal systems found in sponges. (5) Write the general characteristics of the phylum Porifera and classify them with examples. (6) Explain the habitat and morphology of sycon. (7) Explain the reproductive system in sycon. (8) Explain the life cycle of sycon and explain the economic importance of sponges.

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21. ZOOLOGY (SEM-I) QUARTER LENGTH PAPER-II (UNIT-II)

22. Sec. A: Choose any 3 questions. Each question carries a mark weight of 2.

23. 1. What is the function of a spiral finger organism? 2. What is a polyp? 3.

Differentiate between Digenea and Monogenea? 4. Write the main characteristics of Platyhelminthes. 5. Name the host of Ascaris? 6. Why is a migratory body found in Ascaris? 7. How many rectal glands are found in male and female Ascaris? 8. What do you understand by diasporic migration? 9. What is a hexacanth larva? 10. Name the female reproductive organs of Taenia? In which phylum is jellyfish classified? Define polymorphism. Polymorphism is found in animals of any phylum. Give two examples of animals. Which corals exhibit high levels of polymorphism? Define coral? What is meant by lagoon? Name a valuable coral? Which is the largest coral reef in the world and where is it located? How many years does it take to form coral reefs? Name two true stony corals? Name a coral island in India? What is the skeleton of a single coral reef called? Describe the nature of Obelia? In what does Obelia complete its life cycle? To which class does it belong the segmented coral? What is the process of excretion in flatworms? What is Taenia solium commonly known as?

24.

25. Sec. B: Choose any one question. Each question carries 15 marks.

26.

27. UNIT: II (1) Describe in detail the habitat and morphology of Obelia, reproduction in Obelia, and the life cycle of Obelia. (2) Explain the general characteristics and classification of Planthelminthes. (3) Describe the reproductive organs of Ascaris?

Describe the body wall alimentary canal of Ascaris? Describe the excretory system and nervous system. (4) Explain the general characteristics and classification of nematohelminthes. (5) Describe the nervous system of *Taenia solium*. (6) Describe the digestive system and circulatory system in *Taenia solium*.

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29. ZOOLOGY (SEM-I) QUARTER LENGTH PAPER-III (UNIT-III)

30. Sec. A: Choose any three questions. Each question carries a mark weight of 2.

31. 1. What is a clitellum? 2. Explain the meaning of Annelida? 3. Explain the function of the pupal lung? 4. Classify Araneae. 5. What is the mechanism of excretion in Peripatus? 6. What are the major larval systems of Crustacea? 7. Define direct development. 8. Name two insects that exhibit direct development. 9. What type of development occurs in mammals? 10. What is metamorphosis? Which organs perform excretion in animals of the phylum Annelida? Give examples of segmental structure in Annelida. What is the mechanism of excretion in *Nereis*? Name the excretory organs of a scorpion. Name the respiratory organs of a scorpion. Name the bee found in India. Define the blood sac cavity.

32.

33. Sec. B Choose any one question. Each question carries 15 marks.

34. UNIT-III (1) Explain the habitat and morphology of a neridge. Explain the locomotion and digestive system of a neridge. (2) Explain the habitat and morphology of a prawn. Explain the digestive and circulatory system of a prawn. (3) Explain the characteristics of peripatus of the phylum Annelida, Mollusca, and Arthropoda. (4) Explain the circulatory and excretory system of a neridge. Explain the reproductive system of a neridge. (5) Explain the life cycle of a neridge. (6) Explain the general characteristics and classification of arthropods. (7) Explain respiration in a prawn in detail. (8) Explain the life cycle of a prawn.

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36. ZOOLOGY (SEM-I) QUARTER LENGTH PAPER-IV (UNIT-IV)

37. Sec. A: Choose any 3 questions. Each question carries a mark weight of 2.

38. 1. Where is the actual location of the spasm in gastrapoda? 2. How do spasms help gastrapoda locomotion? 3. What is the innermost layer of the shell of mollusca organisms called? 4. Write the scientific names of two species of Echinodermata? 5. Where is the foramina located? 6. How many parts does a tube foot have? 7. What is called a pollen? 8. Write the class of Holothuria animals? 9. How is a pearl formed? 10. What is the nacreous layer? How many classes is the phylum Mollusca classified into? Name them. What is Aptenia? What class of the phylum Mollusca does the clam belong to? What are racemose glands called? What is a pollen vesicle? Why are lateral canals called podial canals?

39. Sec. B Choose any one question. Each question carries 15 marks.

40. UNIT-IV (1) Explain the reproductive organs in *Pila* / Explain the digestive and circulatory system in *Pila* / Explain the excretory system in *Pila*. (2) Explain the general characters and classification of Phylum Echinodermata. (3) Explain the digestive and circulatory system in *Asterias* / Explain the excretory system in *Asterias* / Explain the nature, habitat and morphology of *Asterias*. (4) Explain the life cycle of *Pila*. (5) Explain its classification considering the general characters of Mollusca. (6) Explain the process of convulsion in Gastrapoda.