

# ZOOLOGY - XI

## SET - I

**A. Answer any seven questions in very short. (7x1=7.0)**

1. Define the terms ornithology and entomology
2. Write the scopes of zoology?
3. Give the name of two endangered species of mammals found in Nepal.
4. How does millipedes differ from centipedes?
5. What is pseudocopulation or amplexus?
6. Define the terms vector and definitive host?
7. Which gases were abundantly found in primitive atmosphere?
8. Define pseudo fossils and petrified fossil.
9. Give function of lateral line system in primary aquatic mammals.
10. What do you mean by BOD and photochemical smog?

**B. Answer any five questions in brief (5x3=15.0)**

1. Differentiate between old world monkey and new world monkey.
2. Discuss the process of transverse binary fission in *Paramecium*.
3. Write briefly about copulation and the cocoon formation in Earthworm?
4. Discuss about the causes of extinction of wildlife in Nepal.
5. How do the palaeontological evidences support the organic evolution?
6. Explain the liver schizogony of *Plasmodium*.
7. Describe about the fish migration.

**C. Long questions:**

1. Discuss about nephridia of *Pheretima* with labeled diagram

Or

Describe the types of respiration found in frog. 7.5

2. Explain in detail about theory of natural selection (Darwinism) with examples. 8.5

## SET - II

**A. Answer any seven questions in very short. (7x1=7.0)**

1. Define the terms phycology and mycology.
2. What do you mean by excretion and osmoregulation?
3. How does national park differ from wildlife reserves?
4. Write the zoological name of cattle leech and pigeon.

- What are the functions of Bidder's canal.
- Define the term genetic drift and isolation.
- What was the Aristotle's view regarding origin of Life?
- Enlist the vestigial organs found in human body.
- Differentiate between innate and learned behaviour of animals.
- What do you mean by eutrophication and biomagnification?

**B. Answer any five questions in brief (5x3=15.0)**

- Discuss the structure and function of trichocyst of Paramecium.
- Draw the well labeled diagram of bucco- pharyngeal cavity of frog. (no description).
- Describe about the digestion of food in alimentary canal of frog..
- Explain briefly about Oparin – Haldane theory of origin of life?
- What are the adaptational features of Volant animals?
- Write short notes on taxes.
- Differentiate between osteichthyes and chondrichthyes.

**C. Long questions:**

- Explain life cycle of *Plasmodium* in the female anopheles mosquito with suitable diagram.

Or

Define portal system. Describe about the portal system found in *Rana tigrina* with suitable diagram. **7.5**

- Define the term pollution. Discuss about sources, causes , effects and control measures of water pollution. **8.0**

## SET - III

**A. Answer any seven questions in very short. (7x1=7.0)**

- Define the terms pseudocoelom and haemocoelom.
- What do you mean by typhlosole? Mention its function.
- Define hot dilute soup and coacervates?
- Name the excretory organs found in Arthropoda and Platyhelminthes.
- What is the gist of theory of spontaneous generation?
- What do you mean by growth and metabolism?
- Name the immediate human ancestor of modern man.
- Differentiate between convergent and divergent evolution.
- Enlist the factors which influence the animal migration.
- Who coined the term biology?

**B. Answer any five questions in brief (5x3=15.0)**

1. What is missing link. Describe about it by taking an example.
2. Describe nerve ring of Earthworm.
3. Draw well labeled diagram of T.S. Gizzard of Earthworm (no description).
4. Write the short notes on arboreal of adaptation of animals.
5. Enlist the characteristic features of Echinoderm with its outline of classification.
6. Mention the effects of water pollution.
7. How does contractile vacuole maintain the osmoregulation in *Paramecium*? Discuss.

**C. Long questions:**

1. Explain the internal structure and working mechanism of heart of frog with labelled diagram.

OR

What is schizogony? Illustrate it with reference to the life cycle of *Plasmodium* (asexual life cycle). **7.5**

2. Discuss the evolution of man starting from Anthropoid ancestors. **8.0**

## SET - IV

**A. Answer any seven questions in very short. (7x1=7.0)**

1. What is the function of long tail in arboreal animals?
2. In which phylum do you water canal system and choanocytes?
3. Define the buffer zone.
4. Name the toxic malarial pigment with the symptoms of malaria.
5. What are mesorchium and mesovarium ?
6. Name of centre of reflex action.
7. What are the functions of seminal vesicle and spermathecae in Earthworm?
8. What do you mean by cannibalism and mixotrophic nutrition?
9. Which branches of biology describe about parasitic worms and snakes?
10. What do you mean by carbon dating?

**B. Answer any five questions in brief (5x3=15.0)**

1. Discuss the digestion of protein in small intestine of *Rana*.
2. Draw a well-labeled diagram of setae of Earthworm. (no description)
3. Differentiate between trophozoite and sporozoite stages of *Plasmodium*.
4. Explain the embryological evidences in favour of organic evolution.
5. Discuss the conservation strategies of wildlife resources.

6. Explain the hazards of pesticides on environment.
7. Mention the significance of conjugation in paramecium.

**C. Long questions:**

1. Explain the about alimentary canal of *Pheretima* with suitable diagram.

Or

Discuss reproductive systems of frog with suitable diagrams. 7.5

2. Explain about theory of inheritance of acquired characters with examples. 8.0

## SET - V

**A. Answer any seven questions in very short. (7x1=7.0)**

1. What are malacology and anthropology.
2. In what condition life was originated first?
3. Why pancreas is called heterocrine gland?
4. Define the terms polymorphism and metagenesis.
5. Where do you find the nerve ring in Earthworm?
6. Give the two differences found in modern man and apes.
7. Define the terms metabolism and irritability.
8. Enlist the 2 qualities of leadership.
9. Differentiate between anadromous and catadromous fish migration.
10. Define reflex arc.

**B. Answer any five questions in brief (5x3=15.0)**

1. Differentiate between oxidizing and reducing environment.
2. Sketch the labeled diagram of arterial system of Frog. (description not required)
3. Describe about control measures of malaria.
4. Explain the Miller –Urey's experiment to prove the chemogeny of oparin- Haldane theory.
5. Discuss the process of digestion in paramecium.
6. Write short notes on fish migration
7. What is wildlife? Discuss briefly about its importance?

**C. Long questions:**

1. Describe the reproductive organs of *Pheretima*.

OR

Explain the digestive tract of frog with the labelled diagram. 7.5

2. Discuss about the modern theory of evolution of life. (Neo-Darwinism) 8.0

❖ Good Luck ❖