

**FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020**

Zoology

ZOL 1C 01—ANIMAL DIVERSITY AND WILDLIFE CONSERVATION

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

*Answer at least **eight** questions.*

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 24.

1. Write on IUCN.
2. What is sustainable development ?
3. Write briefly on The Wildlife Protection Act, 1972.
4. Distinguish between Urochordata and Cephalochordata.
5. Write briefly on extinction of species.
6. Mention the flying adaptations of *Pteropus*.
7. Citing one example each distinguish between neurotoxic and haemotoxic venom.
8. Mention the salient features of the phylum Apicomplexa.
9. Write a brief note on *Vorticella*.
10. What are choanocytes ?
11. What is a hermit crab ?
12. Write a note on the 'ship worm'.

(8 × 3 = 24 marks)

Turn over

Section B

*Answer at least **five** questions.*

Each question carries 5 marks.

All questions can be attended.

Overall Ceiling 25.

13. What is a biodiversity hot spot ? Write a note on the biodiversity hot spots coming under Indian region.
14. What are the salient features of Agatha ? Write briefly on the examples you have studied.
15. Enlist the salient features of the super class Pisces.
16. Classify the phylum Echinodermata down to classes mentioning the salient features and one example each.
17. Write an account the human neamatode parasites you have studied.
18. Explain the dentition in *Oryctolagus*.
19. With labeled diagrams explain the structure of the cephalic appendages of *Penaeus*.

(5 × 5 = 25 marks)

Section C

*Answer any **one** question.*

Each question carries 11 marks.

20. With a labeled diagram explain the nervous system of *Penaeus*.
21. With labeled diagrams explain the respiratory system of *Oryctolagus*.

(1 × 11 = 11 marks)

FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION, NOVEMBER 2020

Zoology

ZOL 1B 01T—ANIMAL DIVERSITY : NON-CHORDATA—Part I

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A (Short Answer Questions)*Answer at least **eight** questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

1. Mention the salient features of the phylum Dinoflagellata.
2. What is metamerism ?
3. Explain mutualism with reference to *Trichonympha*.
4. Distinguish between enterocoelom and schizocoelom.
5. What is binomial nomenclature ?
6. What is wheel organ ?
7. What are corals ? Mention an example.
8. Mention the salient features of the subkingdom Mesozoa.
9. Write briefly on a freshwater sponge you have studied.
10. Mention the larval forms of *Fasciola*.
11. Write briefly on polymorphism with reference to *Physalia*.
12. What is lymphatic filariasis ?

(8 × 3 = 24 marks)

Section B (Paragraph Questions)*Answer at least **five** questions.**Each question carries 5 marks.**All questions can be attended.**Overall Ceiling 25.*

13. Explain the development of symmetry in animals.
14. Explain osmoregulation in *Paramecium*.

Turn over

15. Write the five kingdom classification of living organisms.
16. Explain the unique features of the phylum Ctenophora as exemplified by *Pleurobrachia*.
17. With a labeled diagram explain the digestive system of *Dugesia*.
18. Write a note on two human nematode parasites.
19. With a labeled diagram explain the asconoid canal system in sponges.

(5 × 5 = 25 marks)

Section C (Essay Questions)

*Answer any one question.
The question carries 11 marks.*

20. Explain the modern trends in systematics.
21. With a labeled diagram explain the general external morphology of *Obelia*.

(1 × 11 = 11 marks)

**FIRST SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020**

Zoology

ZOL 1C 01—ANIMAL DIVERSITY AND WILD LIFE

Time : Three Hours

Maximum : 64 Marks

Part A

I. One Word Questions. Answer *all* questions. Each question carries 1 mark :

- 1 Which organism is known as 'bell animalcule' ?
- 2 _____ is a parasitic arthropod.
- 3 The salivary glands of *Hirudinaria* contains an anticoagulant enzyme called _____.
- 4 Mention the class to which *Arenicola* belongs.
- 5 _____ is a jawless vertebrate.
- 6 _____ is a limbless amphibian.
- 7 Endoskeleton is cartilage in _____ fish.
- 8 Mention an ovo-viviparous, poisonous snake.
- 9 Biodiversity Act in India was introduced in the year _____.
- 10 National park is an example for _____ method of conservation.

(10 × 1 = 10 marks)

Part B

II. Short Answer Questions. Answer any *seven* questions. Each question carries 2 marks :

- 11 What do you know about choanocytes ?
- 12 Comment on the life cycle of *Fasciola*.
- 13 Mention the characters of the class Chondrichthyes.
- 14 Write the adaptations of *Chamaeleo*.
- 15 Explain coprophagy in rabbit.

Turn over

- 16 Mention the salient features of the kingdom Monera.
- 17 Write on heterocotylisation.
- 18 What is a living fossil ? Mention two examples.
- 19 What do you mean by *ex-situ* conservation ? Mention two examples.
- 20 Explain the concept of sustainable development.

(7 × 2 = 14 marks)

Part C

III. Paragraph Questions. Answer any *four* questions. Each question carries 5 marks.

- 21 Explain the major threats to biodiversity.
- 22 With a labelled diagram explain the structure of the pelvic girdle of rabbit.
- 23 Explain dentition in rabbit.
- 24 With labelled diagrams explain the cephalic appendages of *Penaeus*.
- 25 What are the salient features of the phylum Platyhelminthes. Write briefly on two examples you have studied.
- 26 Write the distinguishing features of Urochordata and Cephalochordata. Add a brief note on one example each.

(4 × 5 = 20 marks)

Part D

IV. Essay Questions. Answer any *two* questions. Each question carries 10 marks :

- 27 Explain the respiratory system and mechanism of respiration in *Penaeus*.
- 28 With labelled diagrams explain the respiratory organs of rabbit. Add a note on the mechanism of respiration.
- 29 Sketch and label the internal structure of the heart of rabbit. Explain the structure and working of the heart.
- 30 What are the salient features of the phylum Arthropoda ? Classify upto classes. Write brief notes on one example each.

(2 × 10 = 20 marks)

**FIRST SEMESTER B.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2020**

(CUCBCSS)

Zoology

ZOL 1B 01—ANIMAL DIVERSITY : NON-CHORDATA—I

Time : Three Hours

Maximum : 80 Marks

Part A

I. One Word Questions. Answer *all* questions. Each question carries 1 mark :

- 1 Name the free swimming larva of *Obelia*.
- 2 Name the symbiotic protist that helps cellulose digestion in termites.
- 3 Type of taxonomy based on antigen-antibody reaction.
- 4 The phylum to which *Plasmodium* belongs.
- 5 Common name of *Physalia*.
- 6 The phylum to which *Brachionus* belongs.
- 7 Name the snail host of *Fasciola*.
- 8 Name a larva of Porifera.
- 9 Name the most complex canal system in sponges.
- 10 The defensive zooids in coelenterates.

(10 × 1 = 10 marks)

Part B

II. Short Answer Questions. Answer any *ten* questions. Each question carries 2 marks :

- 11 What are germ layers ?
- 12 Write any *four* features of Rotifera.
- 13 Comment on the structure and function of cnidoblast.
- 14 Comment on commensalism in *Adamsia*.
- 15 What is trinomial nomenclature ?
- 16 Distinguish between radial and biradial symmetry with example.

Turn over

- 17 Define Metagenesis. Why is it not true metagenesis in *Obelia* ?
- 18 Write any *four* features of Gastrotricha.
- 19 What is cytotaxonomy ?
- 20 What is the significance of gemmule ?
- 21 Differentiate between pseudocoelom and eucoelom.
- 22 *Physalia* shows polymorphism. How ?

(10 × 2 = 20 marks)

Part C

III. Paragraph Questions. Answer any *five* questions. Each question carries 6 marks :

- 23 Describe the unique features of *Pleurobrachia* with diagram.
- 24 Differentiate between class Hydrozoa and class Scyphozoa .
- 25 Briefly explain Five kingdom classification.
- 26 Describe the salient features of Mesozoa .
- 27 Describe nutrition in *Paramecium*.
- 28 What is ICZN ? Discuss the rules.
- 29 Give an account of the salient features of the Kingdom Protista.
- 30 Write notes on : (a) Phenetics ; (b) Cladistics ; and (c) Molecular taxonomy.

(5 × 6 = 30 marks)

Part D

IV. Essay Questions. (Answer any *two* questions). Each question carries 10 marks :

- 31 Explain conjugation in *Paramecium* with diagrams.
- 32 Explain the features of the phylum Nematoda. Write on the important human nematode parasites.
- 33 Explain the types of canal systems in sponges.
- 34 Explain the morphology and life cycle of *Obelia*.

(2 × 10 = 20 marks)

**FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2021**

Zoology

ZOL 1C 01—ANIMAL DIVERSITY AND WILDLIFE CONSERVATION

(2019—2020 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

I. Short answer questions. Each question carries 2 marks :

- 1 Comment on *Sacculina*.
- 2 What is the concept of sustainable development ?
- 3 Mention the characters of *Vorticella*.
- 4 What is a gemmule ?
- 5 Give an account of *Ichthyophis*.
- 6 List the different functions of WWF.
- 7 Briefly describe *Hippocampus*.
- 8 Write a short note on the concept of threatened species.
- 9 Describe the general characters of Protista.
- 10 Explain mutualism with respect to Sea-anemone.
- 11 Write notes on *Branchiostoma*.
- 12 What is the significance and use of biodiversity ?

(Ceiling : 20 marks)

Section B

II. Paragraph questions. Each question carries 5 marks :

- 13 What are the ecological adaptations of *Chamaeleon* ?
- 14 Write down the general characters of Phylum Mollusca.
- 15 Describe the importance and strategies of wild life conservation.

Turn over

- 16 What are the parasitic adaptations of *Ascaris* ?
- 17 Write down the salient features of Class Mammalia.
- 18 Briefly describe the adaptations of *Rhacophorus*.
- 19 Write notes on *Pinctada fucata*.

(Ceiling : 30 marks)

Section C

III. Essay questions. Answer any *one* question :

- 20 Explain the water vascular system of star fish with suitable diagrams.
- 21 Write an essay on digestive system of Rabbit.

(1 × 10 = 10 marks)

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FIRST SEMESTER (CBCSS-UG) DEGREE EXAMINATION, NOVEMBER 2021**Zoology****ZOL 1B 01T—ANIMAL DIVERSITY : NON CHORDATA PART—I**

(2019—2020 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

I. Short answer questions. Each question carries 2 marks :

- 1 Write notes on different types of symmetry.
- 2 Write down the salient features of phylum dinoflagellates.
- 3 Briefly describe Ascaris.
- 4 Mention unique features of Pleurobrachia.
- 5 What is gemmule ? Mention its significance.
- 6 What is hexacanth embryo ?
- 7 What is Dicyemida ?
- 8 Write notes on Rotifera.
- 9 Define the features of class trematoda with example.
- 10 What is red tide ?
- 11 Define natural system of classification.
- 12 What is DNA Barcoding ?

(Ceiling: 20 marks)

Section B

II. Paragraph questions. Each question carries 5 marks :

- 13 Distinguish phenetics and cladistics in detail.
- 14 Describe the morphology of Paramecium with suitable diagram.
- 15 What is coelom ? Mention its types.

Turn over

- 16 Write notes on Portuguese-man of war.
- 17 Describe the life cycle of *Obelia*.
- 18 Write notes on pseudocoelomate minor phyla.
- 19 Write down the characters of Aschelminthes.

(Ceiling : 30 marks)

Section C

III. Essay questions. Answer any *one* question :

- 20 Write an essay on canal system of sponges.
- 21 Describe the classification of Phylum Platyhelminthes giving examples.

(1 × 10 = 10 marks)

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**FIRST SEMESTER (CBCSS-UG) DEGREE EXAMINATION
NOVEMBER 2021**

Zoology

ZOL 1C 01—ANIMAL DIVERSITY AND WILDLIFE CONSERVATION

(2021 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

*Answer atleast **eight** questions.*

Each question carries 3 marks.

All questions can be attended.

Overall ceiling 24.

1. What is Red Data Book ?
2. Write briefly on ex-situ conservation.
3. Citing an example explain the concept of endemism.
4. What is sustainable development ?
5. Mention the salient features of the phylum Rhizopoda.
6. What do you know about malaria ?
7. What is a living fossil. Mention two examples.
8. What is blood fluke ?
9. Explain sexual dimorphism in *Ascaris*.
10. What is retrogressive metamorphosis ? Mention an example.
11. Mention the arboreal adaptations of *Rhacophorus*.
12. Why *Narcine* is called 'electric ray' ?

(8 × 3 = 24 marks)

Turn over

Section B

Answer atleast five questions.

Each question carries 5 marks.

All questions can be attended.

Overall ceiling 25.

13. Write briefly on the threats to biodiversity.
14. Explain the salient features of the phylum Porifera.
15. Classify the phylum Coelenterata down to classes giving salient features and one example for each class.
16. Write a note on the poisonous snakes you have studied.
17. With a labeled sketch explain the structure of the pelvic girdle of *Oryctolagus*.
18. With labeled diagrams explain the abdominal appendages of *Penaeus*.
19. Write the salient features of the phylum Mollusca.

(5 × 5 = 25 marks)

Section C

Answer any one question.

The question carries 11 marks.

20. With labeled diagrams explain the structure of the brain of *Oryctolagus*.
21. With a labeled diagram explain the structure and working of the compound eye of *Penaeus*.

(1 × 11 = 11 marks)

FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION, NOVEMBER 2021

Zoology

ZOL 1B 01T—ANIMAL DIVERSITY : NON CHORDATA PART—I

(2021 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A (Short Answer Questions)

*Answer at least eight questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

1. What is chemotaxonomy ?
2. Write briefly on DNA barcoding.
3. Mention the salient features of the Kingdom Monera.
4. What is triploblasty ?
5. Explain dimorphism of nuclei in *Paramecium*.
6. Write briefly on *Dicyema*.
7. Write on the larval forms of sponges.
8. Explain alternation of generation with reference to *Obelia*.
9. Write briefly on mutualism with reference to *Adamsia*.
10. What do you know about hook worm ?
11. What is parthenogenesis ? Give an example.
12. What are gastrotrichs ?

(8 × 3 = 24 marks)

Section B (Paragraph Questions)

*Answer at least five questions.**Each question carries 5 marks.**All questions can be attended.**Overall Ceiling 25.*

13. Explain the development of coelom in animals.
14. Write a note on zoological nomenclature.

Turn over

15. Explain the salient features of the phylum Dinoflagellata. Write briefly on an example you have studied.
16. Write a brief account on polymorphism in coelenterates.
17. Classify the phylum Platyhelminthes down to classes mentioning salient features and one example each.
18. Explain the characteristic features of *Ascaris*.
19. Write the unique features of the phylum Ctenophora.

(5 × 5 = 25 marks)

Section C (Essay Questions)

*Answer any one question.
The question carries 11 marks.*

20. Explain the canal systems in sponges.
21. With illustrations explain conjugation in *Paramecium*.

(1 × 11 = 11 marks)

**FIRST SEMESTER (CUCBCSS-UG) DEGREE EXAMINATION
NOVEMBER 2021**

Zoology

ZOL 1C 01—ANIMAL DIVERSITY AND WILDLIFE

(2016—2018 Admissions)

Time : Three Hours

Maximum : 64 Marks

Part A

I. One word questions. Answer *all* questions. Each carries 1 mark :

- 1 Which organism is associated with 'red tide' ?
- 2 _____ is an aquatic insect.
- 3 Teredo belongs to the class _____.
- 4 Mention an organism which exhibits metagenesis.
- 5 Tunicin is found in _____ animal.
- 6 _____ is a lamprey.
- 7 _____ fish exhibits parental care.
- 8 Zygodactyly is seen in _____.
- 9 Conserving wildlife away from their natural habitat is called _____ conservation.
- 10 Environment(Protection)Act was introduced in India in the year _____.

(10 × 1 = 10 marks)

Part B

II. Short answer questions. Answer any *seven* questions. Each carries 2 marks :

- 11 Distinguish between polyp and medusa.
- 12 Write on sexual dimorphism in *Ascaris*.
- 13 Mention the salient features of the kingdom Monera.
- 14 Comment on *Arenicola*.

Turn over

- 15 Write on the ambulacral apparatus of *Asterias*.
- 16 Mentioning the dental formula, explain the dentition in rabbit.
- 17 Write the most salient features of the class Aves.
- 18 Explain why *Echeneis* is called sucker fish.
- 19 What is in-situ conservation ?
- 20 What do you know about IUCN ?

(7 × 2 = 14 marks)

Part C

III. Paragraph questions. Answer any *four* questions. Each carries 5 marks :

- 21 Explain the major threats to biodiversity.
- 22 Explain the mechanism of regulation of heart beat in rabbit.
- 23 With labelled diagrams explain the structure of the pectoral girdle of rabbit.
- 24 With a labelled diagram explain the structure of the compound eye in *Penaeus*.
- 25 Write the salient features of the phylum Annelida. Add a note on two examples.
- 26 Mention the salient features of the class Amphibia. Write a note on two examples.

(4 × 5 = 20 marks)

Part D

IV. Essay questions. Answer any *two* questions. Each carries 10 marks :

- 27 With labelled diagrams explain the thoracic and abdominal appendages of *Penaeus*.
- 28 With an illustration explain the digestive system of rabbit. Add a note the mechanism of digestion.
- 29 Draw labelled sketches of the dorsal and ventral views of the brain of rabbit. Explain the structure.
- 30 Mention the salient features of the superclass Pisces. Classify upto classes giving diagnostic characters. Write brief notes on one example each.

(2 × 10 = 20 marks)

**FIRST SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2021**

Zoology

ZOL 1B 01—ANIMAL DIVERSITY : NON CHORDATA I

(2016—2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A

I. One Word Questions. Answer *all* questions. Each Question carries 1 mark :

- 1 Mention the phylum with pseudocoelom.
- 2 Expand ICZN.
- 3 The class of flatworms with ciliated epidermis.
- 4 Mention the osmoregulatory structure of *Paramecium* ?
- 5 Name the collared flagellated cells of Porifera.
- 6 The class to which *Spongilla* belongs to.
- 7 Name the larva of *Pleurobrachia*.
- 8 Disease caused by *Fasciola*.
- 9 Name the cnidarian class with non-cellular mesogloea.
- 10 Name the excretory organ of flatworms.

(10 × 1 = 10 marks)

Part B

II. Short Answer Questions. Answer any *ten* questions. Each question carries 2 marks :

- 11 Differentiate artificial and natural systems of classification.
- 12 Represent the route of water flow in sycon type of canal system.
- 13 What is binomial nomenclature ?
- 14 What is cnidoblast ?

Turn over

- 15 Distinguish between homology and analogy.
- 16 Comment on sexual dimorphism in *Ascaris*.
- 17 Differentiate between polyp and medusa.
- 18 What are germ layers ?
- 19 Differentiate between protostomes and deuterostomes.
- 20 Comment on the association between *Trichonympha* and termites
- 21 Comment on polyembryony in *Fasciola*.
- 22 What is blastostyle ?

(10 × 2 = 20 marks)

Part C

III. Paragraph Questions. Answer any *five* questions. Each question carries 6 marks :

- 23 Differentiate between class Calcispongiae and Demospongiae.
- 24 Describe the salient features of Mesozoa.
- 25 Distinguish between polyp and medusa with diagrams.
- 26 Write on phylum Rotifera with example.
- 27 Discuss the rules of nomenclature.
- 28 Explain locomotion in Paramecium.
- 29 Write briefly on new trends in taxonomy.
- 30 Explain the morphology of *Obelia*.

(5 × 6 = 30 marks)

Part D

IV. Essay Questions. Answer any *two* Questions. Each Question carries 10 marks.

- 31 Write on the features of phylum Coelenterata. Classify the phylum with examples.
- 32 Explain canal system in sponges.
- 33 Write on the features of phylum Platyhelminthes. Classify the phylum with examples.
- 34 What is metagenesis? Explain the phenomenon in *Obelia*.

(2 × 10 = 20 marks)