



K.K.S. WOMEN'S COLLEGE, BALASORE.

DEPARTMENT OF ZOOLOGY

SUBJECT: ZOOLOGY (HONS.) CC-I & CC-II

**QUESTION BANK: PREVIOUS YEAR
QUESTIONS WITH MODEL QUESTIONS**

2018

Full Marks - 60

Time - 3 hours

The figures in the right-hand margin indicate marks

Answer *all* questions

1. a) Describe the life cycle of *Entamoeba histolytica*. 9
- b) Write short notes on the following : 3 × 2
- i) Sporozoite
 - ii) Spicules in sponges.

OR

- c) Describe the canal system in sponges and comment on their evolutionary significance. 9
- d) Write short notes on the following : 3 × 2
- i) Pseudopodia formation
 - ii) Protista.

[2]

2. a) Describe the polymorphism in *Cnidaria*. 9
b) Write short notes on the following : 3 × 2
i) Metagenesis in *Obelia*
ii) Atoll.

OR

- c) Give an account of formation of coral reefs. 9
d) Write short notes on the following : 3 × 2
i) Polypoid forms in *Cnidaria*
ii) *Ctenophora*.
3. a) Describe the life cycle of *Fasciola hepatica*. 9
b) Write short notes on the following : 3 × 2
i) Scolex of *Taenia*
ii) Gravid proglottid.

OR

[3]

- c) Describe the life cycle of *Taenia solium*. 9
d) Write short notes on the following : 3 × 2
i) Parasitic adaptation in *Fasciola*
ii) Characters of flat worms.

4. a) Describe the life cycle of *Wuchereria bancrofti*. 9
b) Write short notes on the following : 3 × 2
i) Classes of nemathelminthes
ii) Sexual dimorphism in *Ascaris*.

OR

- c) Describe the life cycle of *Ascaris Lumbricoides*.
Add a note on its pathogenicity. 9
d) Write short notes on the following : 3 × 2
i) Parasitic adaptation in Round worms
ii) Pathogenicity of Hook worm.

2018

Full Marks - 60

Time - 3 hours

The figures in the right-hand margin indicate marks

Answer *all* questions

1. a) Describe the composition and significance of balanced diet. 9
- b) Write notes on the following :
- i) Name the various components of food. 3
- ii) Mention the nutrients needs for pregnant women. 3

OR

- c) Describe the dietary pattern for infants. 9
- d) Write notes on the following :
- i) Define nutrients 3
- ii) Name the different nutrient needs of school children. 3

[Turn Over

[2]

2. a) Write the importance of minerals in brief. 9
b) Write notes on the following :
i) Fat soluble vitamins 3
ii) Describe the dietary source of protein. 3

OR

- c) Describe about the water soluble vitamins. 9
d) Write notes on the following :
i) Mention the types of carbohydrates. 3
ii) Define lipids and mention their nutritional importance. 3
3. a) Give a brief account of iron deficiency diseases. 9
b) Write notes on the following :
i) Mention the different types of social health problems. 3
ii) Write the cause and treatment of cough.. 3

OR

[3]

- c) Describe the cause and symptoms of AIDS. 9
d) Write notes on the following :
i) Write notes on Protein energy malnutrition. 3
ii) Name the different Vitamin deficiency diseases. 3

4. a) Describe the different types of bacterial infections in brief. 9
b) Write notes on the following :
i) Mention the different types of protozoan infections. 3
ii) Water borne diseases. 3

OR

- c) Describe the causes of food spoilage and how we can prevent it. 9
d) Write notes on the following :
i) Bacterial infections. 3
ii) Transmission of Ascariasis. 3

2020

Full Marks - 60

Time - 3 hours

The figures in the right-hand margin indicate marks

Answer *all* questions

Part-I

1. Answer the following : 1 × 8
- a) The infective stage of *Entamoeba histolytica* is ____.
 - b) In Sponge, the water exit by ____.
 - c) Larva of obelia is called ____ .
 - d) ____ is the larva of Ctenophora.
 - e) The cause of 'Liver rot' in sheep by ____ .
 - f) Secondary host of *Taenia solium* is ____ .
 - g) The Coelom of Ascaris is called ____ .
 - h) Viviparity is seen in ____ nematode.

Part-II

2. Answer any *eight* of the following in two or three sentences each : 1½ × 8
- a) Which is the connecting link between plant and animal ?
 - b) What is the nitrogenous excretory product of Amoeba ?
 - c) What is Schieffner's granules ?
 - d) Define metagenesis.
 - e) What is spicules ?
 - f) What is Rheotaxis ?
 - g) Define Haxacanth.
 - h) What is Laurer's canal ?
 - i) Define Apolysis.
 - j) What is Elephantasis ?

Part-III

3. Answer any *eight* of the following within 75 words. 2 × 8
- a) Define osmoregulation in Amoeba.
 - b) Write about Sol-gel theory.

[3]

- c) Write different type of Malaria and its causative organism.
- d) Define Ookinete stage of Plasmodium.
- e) Differentiate between Polyp and Medusa of obelia.
- f) Write parasitic adaptation of Fasciola.
- g) Write about Scolex of *Taenia solium*.
- h) Write characters of sexual dimorphism in *Ascaris lumbricoides*.
- i) Define Microfilariae.
- j) Write four distinct characters of phylum Nematohelminthes.

Part-IV

- 4. a) Describe life cycle and pathogenicity of *Entamoeba histolytica*. 6
- OR
- b) Describe various canal system in Phylum Porifera.

[4]

- 5. a) Describe polymorphism in Cnidaria. 6
- OR
- b) Write general characteristics of phylum Cnidaria and its classification upto class.
- 6. a) Describe life cycle of *Fasciola hepatica*. 6
- OR
- b) Describe life cycle of *Taenia solium*.
- 7. a) Explain parasitic adaptations in helminthes. 6
- OR
- b) Describe life cycle of *Ascaris lumbricoides*.

L-9

□□

2020

Full Marks - 60

Time - 3 hours

The figures in the right-hand margin indicate marks

Answer *all* questions

Part-I

1. Answer the following by fill in the blanks : 1×8
 - a) The term ecosystem was introduced by ____.
 - b) If the radiant energy available to the plant is 10,000 KCal. ____ energy would be available to the top consumer.
Plant → deer → lion.
 - c) The carrying capacity of a population is chiefly controlled by ____.
 - d) An interaction where members of a species eat up other members of same species is called ____.
 - e) Arrangement of species into different vertical layers is termed ____.

- f) Successful establishment of a species after adjustment with the environmental conditions prevailing in the new area is called ____.
- g) The total of all observations divided by number of observations is called ____.
- h) Any hypothesis which is tested for the purpose of rejection under the assumption that it is true is called ____.

Part-II

2. Answer any *eight* of the following in two or three sentences each. $1\frac{1}{2} \times 8$
 - a) What is autecology ?
 - b) Draw the ecological pyramid of number in the forest ecosystem.
 - c) Define Gause principle ?
 - d) What is parasitoidism ?
 - e) What is Ecotone ?
 - f) Define Simpson's diversity index ?
 - g) What is keytone species ?
 - h) Define central tendency ?
 - i) What is allelopathy ?
 - j) The geometric mean of 3, 9, 27 is ____.

[3]

Part-III

3. Answer any *eight* of the following within 75 words each. 2×8
- a) Differentiate between crude density and specific density.
 - b) Differentiate between primary productivity and Secondary productivity of ecosystem.
 - c) Give diagram of Nitrogen cycle.
 - d) Differentiate between Food chain and Food web.
 - e) Differentiate between Altruism and Ammensalism.
 - f) Draw the diagram of different types of age pyramid.
 - g) Differentiate between r- and k- selected species.
 - h) What is nudation and write its different causes.
 - i) Find the harmonic mean of 2, 4 and 6.
 - j) Compute mode of the following data 15, 8, 26, 25, 24, 15, 18, 20, 24, 15, 19, 15.

Part-IV

4. a) Describe flow of energy through ecosystem. 6
OR
b) Explain Light as Physical factor.

[4]

5. a) Describe exponential and Logistic theory of population growth. 6
OR
b) Describe different types of inter and intraspecific competition among population.
6. a) Discuss the zonation and vertical stratification of a community. 6
OR
b) Describe ecological succession with one example.
7. a) Find the standard deviation of the set of observations : 6
10, 12, 18, 13, 7
OR
b) Ten individuals are chosen at random from a population and their heights are measured in cm. The data of the heights in the cm were : 157.5, 157.5, 160, 162.5, 165, 172.5, 172.5, 175, 175, 177.6.
Can the sample be considered to have come from a population of mean height 162.5cm. Find the 95% confidence limits for the mean.
(The tabulated value for 9 degree of freedom at 5% level of significance = 1. 833)

2021

Full Marks - 60

Time - 3 hours

The figures in the right-hand margin indicate marks

Answer *all* questions

Part-I

1. Fill in the blanks : 1 × 8

- a) *Euglena* belongs to the class _____.
- b) The response of amoeba to gravity is called _____.
- c) The infective stage of *Entamoeba histolytica* is _____.
- d) _____ is the larva of *Sycon*.
- e) _____ is commonly called sea Walnuts.
- f) The primary host of *Fasciola hepatica* is _____.
- g) Cysticercosis is caused by _____.
- h) _____ is the viviparous nematodes.

[2]

Part-II

2. Answer any **eight** of the following : $1\frac{1}{2} \times 8$

- a) What is Osmoregulation ?
- b) Write different types of malaria and its causative organism.
- c) Define circunvallation.
- d) What is metagenesis ?
- e) What is coral ? Write its different types.
- f) What is Manubrium ?
- g) Write pathogenesis of Liver rot disease.
- h) Write the various modification of polyp.
- i) What is apolysis ?
- j) Define Bladderworm.

Part-III

3. Answer any **eight** of the following : 2×8

- a) Justify euglena as an animal.
- b) Write about Sol-gel theory.
- c) Write different types of Spicules.

[3]

- d) Differentiate between polyp and Medusa.
- e) Write general characteristics of Ctenophora.
- f) Write short notes on Miracidium larva.
- g) Write different types of coral reefs.
- h) Write parasitic adaptations of *Fasciola hepatica*.
- i) Write about structure of Scolex of *Taenia solium*.
- j) Write sexual dimorphism in *Ascaris*.

Part-IV

4. a) Describe the life cycle of *plasmodium vivax*. 6

OR

b) Describe various canal system found in Sponge.

5. a) Describe evolutionary significance of Ctenophora. 6

OR

b) Write general characteristics of phylum cnidaria and classification upto class.

L-766

[Turn Over

[4]

6. a) Explain life cycle of *Taenia solium*.

OR

b) Write general characteristics of phylum platyhelminthes and its classification upto class.

7. a) Discuss life cycle of *Ascaris lumbricoides*. 6

OR

b) Describe life cycle of *Wuchereria bancrofti*.

L-766-1300

□□

2021

Full Marks - 60

Time - 3 hours

The figures in the right-hand margin indicate marks

Answer *all* questions

Part-I

1. Fill in the blanks : 1 × 8
- a) A group of organism of the same species living in a particular area for a particular period of time form a ____.
 - b) The zone of pond which is beyond the reach of light is called ____.
 - c) The ten percent law of energy transfer was given by ____.
 - d) The formula for exponential population growth is ____.
 - e) Measure of diversity among communities is known as ____.

[2]

- f) The transition zone between two or more diverse communities is called ____.
- g) Phytoplanktons are primary community in succession of ____.
- h) ____ is that value of the variable which has the maximum frequency.

Part-II

2. Answer any *eight* of the following : 1½ × 8

- a) What is synecology ?
- b) Define food web.
- c) What is ecological pyramid ?
- d) What is natality ?
- e) Define edge effect.
- f) Give equation of logistic growth.
- g) What is parasitism ?
- h) Define quartile deviation.
- i) What is central tendency.
- j) Define biological data.

[3]

Part-III

3. Write short notes on any *eight* of the following : 2 × 8

- a) Nitrogen cycle
- b) Y-shaped food chain
- c) r and k population
- d) Survivorship curve
- e) Population interactions
- f) Vertical stratification
- g) Exponential growth
- h) Species richness
- i) Sampling techniques
- j) Histogram.

Part-IV

4. a) Describe pond as an ecosystem. 6

OR

b) Explain temperature as physical factor.

5. a) Describe density dependent and independent factors of population regulation. 6

OR

- b) Discuss Gause' principle with laboratory and field examples.

6. a) Describe ecological succession on rock surface. 6
and optm.

OR

- b) Discuss various theories pertaining to climax community.

7. a) Find the mean deviation from mean and median from the given set of values. 6
8, 12, 25, 28, 15, 33, 40.

OR

- b) Find the standared deviation of the set of observations. *and optm.*
10, 12, 18, 13, 7.

23/5
23/5

IV-UG-Zool(GE-B)-II
(Food, Nutrition And Health)

2021

Full Marks - 60

Time - 3 hours

The figures in the right-hand margin indicate marks

Answer *all* questions

Part-I

1. Fill in the blanks : 1 × 8
- a) A diet high in saturated fats can lead to ____ disease.
 - b) ____ is a unit of energy that indicates the amount of energy contained in food.
 - c) ____ vitamin is useful in the prevention and treatment of pernicious anemia.
 - d) An early sign of retinol deficiency in man is ____.
 - e) A person with the enlarged thyroid gland protruded eye ball, increased BMR and weight loss is suffering from ____.
 - f) The main carcinogenic ingredient of tobacco smoke is ____.

[2]

- g) The widal test is carried out to test ____.
- h) The region where the Polio virus multiplies in the body is ____.

Part-II

2. Answer any *eight* of the following within two to three sentences each : 1½ × 8
- a) Define the term nutrient.
 - b) Write various dietary source of protein.
 - c) What are the role of Vitamins in human body ?
 - d) Write importance of proteins.
 - e) What are the cause and symptoms of iron defficiency disorders.
 - f) Write the effect of obesity.
 - g) What are the consequence effects of drug addiction.
 - h) Write the cause and treatment of dysentery.
 - i) Why Hepatitis is dangerous ? Write its symptoms.
 - j) Write cause and transmission of Taeniasis.

[3]

Part-III

3. Write notes on any *eight* of the following within 75 words each : 2×8

- a) Balanced diet
- b) Diet for school children
- c) Significance of Lipids
- d) Classification of Proteins
- e) Water soluble Vitamins
- f) Diabetes mellitus
- g) Iodine deficiency disorder
- h) Alcoholism
- i) Cholera
- j) Ascariasis.

Part-IV

4. a) Discuss various components and nutritive value of food. 6

OR

- b) Describe dietary pattern for pregnant and nursing mother, infants and adolescent age people.

[4]

5. a) Give an account of dietary source, classification and role of carbohydrate in the body. 6

OR

- b) Describe importance of various minerals and its biological function.

6. a) Discuss about Protein-energy malnutrition. 6

OR

- b) Explain cause, treatment and prevention of AIDS.

7. a) Describe various sources and method of purification of Potable Water. 6

OR

- b) Give an account of causes of food spoilage and its preventive measures.

L-249(A)

□□

SUBJECT: ZOOLOGY (HONS.) CC-I & CC-II

**OTHER QUESTIONS: PREVIOUS YEAR
QUESTIONS WITH MODEL QUESTIONS**

+3-I-Sem
Zoo (H)- I

2017

Full Marks : 50

Time : $2\frac{1}{2}$ hours

Answer all questions.

The figures in the right-hand margin indicate marks

Give labelled diagrams wherever necessary:

1. Write short notes on the following : $2\frac{1}{2} \times 4$
- (a) Flagellata
 - (b) Spicules in sponges
 - (c) Medusoid form
 - (d) Pathogenicity of Ascaris

2. Describe the life cycle of *Entamoeba histolytica*. 10

Or

Give the general characteristics and classification of Porifera up to classes with suitable examples.

(2)

3. Write an essay on Coral reefs. 10

Or

Write notes on :

(a) Scyphozoa

(b) General characteristics of Ctenophora

4. What is polyembryony ? Discuss the phenomenon with reference to *Fasciola hepatica*. 10

Or

Describe the life cycle and pathogenicity of *Taenia solium*. https://www.odishastudy.com

5. Give an account of life cycle and pathogenicity of *Wuchereria bancrofti*. 10

Or

Write notes on :

(i) Pathogenicity of Ascaris

(ii) Parasitic adaptations in Nematelminthes.

**+3- I-Sem
Zoo (H)- II**

2017

Full Marks : 50

Time : 2½ hours

Answer all questions.

The figures in the right-hand margin indicate marks

Give labelled diagrams wherever necessary.

1. Write short notes on the followings : $2\frac{1}{2} \times 4$
- (a) Autecology and synecology
 - (b) Gause's principle
 - (c) Vertical stratification
 - (d) Food chains

2. Describe temperature, as an ecological factor.

Or 10

Describe light as an ecological factor.

3. Explain exponential and logistic growth equations and pattern of *r* and *k* strategies. 10

(Turn Over)

(2)

Or

Write notes on :

- (a) Natality
- (b) Parasitism and its types

4. What is ecological succession ? Give an account of primary and secondary succession. 10

Or

Write notes on :

- (a) Ecotone
- (b) Species richness

5. What is Ecological pyramid ? Describe different types of ecological pyramids. 10

Or

Give a detailed account of wildlife conservation and management.

2 0 1 8

Full Marks : 60

Time : 3 hours

The questions are of equal value

Answer **all** questions

1. Answer the following :

- (a) Which class of Protozoa has characteristic feature of the presence of pseudopodia?
- (b) Which class of Protozoa are generally endoparasites and lack contractile vacuole?
- (c) What is the basis of the classification of the phylum-Porifera?
- (d) Mention the path of water in the canal system in Porifera.
- (e) What is metagenesis in Cnidaria?
- (f) What is polymorphism in Cnidaria?
- (g) Mention three basic characteristic features of Ctenophores.

A/9(88)—3900

(Turn Over)

(2)

- (h) What are the three classes of platyhelminthes?
 - (i) How is *Fasciola hepatica* transmitted?
 - (j) The life cycle of *Ascaris lumbricoides* is monogenetic. Justify.
 - (k) *Wuchereria bancrofti* is an ovoviviparous parasite. Explain.
 - (l) Nematelminthes are pseudocoelomate. Explain.
2. Discuss the life cycle of *Plasmodium vivax* highlighting its pathogenicity.

Or

Briefly explain the canal system and spicules in Porifera.

3. Discuss the general characteristics and polymorphism in Cnidaria.

Or

Write notes on the following :

- (a) Coral reef
- (b) Evolutionary significance of Ctenophora.

A/9(88)

(Continued)

<https://www.odishastudy.com>

(3)

4. Describe the life cycle and pathogenicity of *Taenia solium* with suitable diagram.

Or

Write notes on the following :

- (a) General characteristics of Platyhelminthes
(b) Pathogenicity of *Fasciola hepatica*.

5. Explain the life cycle of *Wuchereria bancrofti* highlighting its pathogenicity.

Or

Write notes on the following :

- (a) Pathogenicity of *Ascaris lumbricoides*
(b) Parasitic adaptation in helminthes.

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A/9(88)—3900

+3 1st Sem./Zoc (H)-1

<https://www.odishastudy.com>

2018

Full Marks : 60

Time : 3 hours

The questions are of equal value

Answer **all** questions

1. Answer the following :

- What is modular population?
- What are the main characteristics of a population?
- Differentiate between natality and mortality.
- What happens to population numbers as intraspecific competition increases?
- What is population dispersion? Mention there types of dispersion.
- Mention main four factors that affect population size in an ecosystem.
- What is the difference between symbiosis and mutualism?

A/9(89)—3900

(Turn Over)

(2)

- What is fecundity table in ecology?
- Mention the three levels of diversity in an ecosystem.
- Pyramid of energy is always upright. Justify.
- How is detritus food chain connected with grazing food chain?
- Which trophic level has the least biomass? <https://www.odishastudy.com>

2. Explain the 'laws of limiting factors'. Mention the effect of light and temperature.

Or

Write notes on the following :

- Levels of organization
- Autecology.

3. Explain the exponential and logistics growth highlighting its equation. Add a note on the r and K strategies.

Or

Write notes on the following :

- Gause's principle
- Survivorship curves.

A/9(89)

(Continued)

<https://www.odishastudy.com>

(3)

4. Define succession. Discuss the process of ecological succession with suitable example.

Or

Write notes on the following :

- (a) Species richness and dominance
(b) Ecotone and edge effect.

5. What is energy flow in an ecosystem? Discuss the energy flow in an ecosystem with suitable illustrations.

Or

Write notes on the following :

- (a) Linear and Y-shaped food chain
(b) Wildlife conservation.

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A/9(89)—3900

+3 1st Sem/Zoo (H)—II

<https://www.odishastudy.com>

+3-IS-CBCS-Sc.(H)
Core-1 — Zool
(R & B)

2018

Time : As in Programme

Full Marks : 50

The figures in the right-hand margin indicate marks

Answer all questions

- 1 Define each of the following in **one** sentence.
⊕ 1×10 = 10
ନିମ୍ନଲିଖିତ ପ୍ରତ୍ୟେକର ସଂଜ୍ଞା ଗୋଟିଏ ବାକ୍ୟରେ ପ୍ରଦାନ କର ।
- (a) Protista
ପ୍ରୋଟିଷ୍ଟା
- (b) Coral
ପ୍ରବାକ
- (c) Metagenesis
ମେଟାଜେନେସିସ୍
- (d) Polymorphism
ବହୁରୂପିତା
- (e) Parasite
ପରଜୀବୀ

RW – 51/3

(Turn over)

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- (f) Life Cycle
ଜୀବନ ଚକ୍ର
- (g) Reproduction
ପ୍ରଜନନ
- (h) Adult
ବୟସ ପ୍ରାପ୍ତ
- (i) Evolution
ବିବର୍ତ୍ତନ
- (j) Metazoa
ମେଟାଜୋଆ

2. Describe the life cycle of **Entamoeba histolytica**. 8
ଏଣ୍ଟାମିବା ହିଷ୍ଟୋଲିଟିକାର ଜୀବନ ଚକ୍ର ବର୍ଣ୍ଣନା କର ।

OR

କିମ୍ବା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

- (a) Asexual cycle of **Plasmodium**
ଘାସ୍‌ମୋଡିୟମର ଅଲିଙ୍ଗୀୟ ଚକ୍ର
- (b) Trypanosomiasis
ଟ୍ରିପାନୋସୋମୋସିସ୍ ରୋଗ

RW – 51/3

(2)

Contd.

<https://www.odishastudy.com>

3. Explain canal system in sponges. 8
ଶିସ୍ତ୍ରୀକମାନଙ୍କର ନଳା ତନ୍ତ୍ର ବ୍ୟାଖ୍ୟା କର ।

OR

ବିନ୍ୟା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

(a) Syconoid canal system

ସାଇକନ୍ କେନାଲ ତନ୍ତ୍ର

(b) Structure of Ctenophora

ପାନିଆ ଥିବା ପ୍ରାଣୀଙ୍କ ଗଠନ

4. Define and discuss polymorphism. 8
ସଂଜ୍ଞା ସହ ବହୁରୂପିତା ଆଲୋଚନା କର ।

OR

ବିନ୍ୟା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

(a) Anthozoa

ଆନ୍ଥୋଜୋଆ

(b) Coral reef

ପ୍ରବାଳ ପ୍ରାଚୀର

5. Elucidate the life cycle of *Taenia solium*. 8
ଟେନିଆ ସୋଲିଅମ୍‌ର ଜୀବନ ଚକ୍ର ଦର୍ଶାଅ ।

OR

ବିନ୍ୟା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

(a) Cercaria

ସର୍କାରିଆ

(b) Trematoda

ଟ୍ରିମାଟୋଡ଼ା

6. Describe the life cycle of *Ascaris*. 8
ଗୋଇକୁନିର ଜୀବନଚକ୍ର ବର୍ଣ୍ଣନା କର ।

OR

ବିନ୍ୟା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

(a) Filariasis

ଫିଲାରୀସିସ

(b) Sexual dimorphism in *Ascaris*

ଗୋଇକୁନିର ଲିଙ୍ଗୀୟ ବିଭିନ୍ନତା



RW – 51/3 (7,000)

(4)

+3-IS-CBCS-Sc.(H)
Core-1 — Zool

RW – 51/3

(3)

Contd.

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+3-IS-CBCS-Sc.(H)
Core-1 — Zool
(R & B)

2018

Time : As in Programme

Full Marks : 50

The figures in the right-hand margin indicate marks

Answer all questions

- 1 Define each of the following in **one** sentence.
⊕ 1×10 = 10
ନିମ୍ନଲିଖିତ ପ୍ରତ୍ୟେକର ସଂଜ୍ଞା ଗୋଟିଏ ବାକ୍ୟରେ ପ୍ରଦାନ କର ।
- (a) Protista
ପ୍ରୋଟିଷ୍ଟା
 - (b) Coral
ପ୍ରକାବ
 - (c) Metagenesis
ମେଟାଜେନେସିସ୍
 - (d) Polymorphism
ବହୁରୂପିତା
 - (e) Parasite
ପରଜୀବୀ

RW – 51/3

(Turn over)

<https://www.odishastudy.com>

- (f) Life Cycle
ଜୀବନ ଚକ୍ର
- (g) Reproduction
ପ୍ରଜନନ
- (h) Adult
ବୟସ ପ୍ରାପ୍ତ
- (i) Evolution
ବିବର୍ତ୍ତନ
- (j) Metazoa
ମେଟାଜୋଆ

2. Describe the life cycle of **Entamoeba histolytica**. 8
ଏଣ୍ଟାମିବା ହିଷ୍ଟୋଲିଟିକାର ଜୀବନ ଚକ୍ର ବର୍ଣ୍ଣନା କର ।

OR

କିମ୍ବା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

- (a) Asexual cycle of **Plasmodium**
ଘାସ୍‌ମୋଡିୟମର ଅଲିଙ୍ଗୀୟ ଚକ୍ର
- (b) Trypanosomiasis
ଟ୍ରିପାନୋସୋମିଆସିସ୍ ରୋଗ

RW – 51/3

(2)

Contd.

<https://www.odishastudy.com>

3. Explain canal system in sponges. 8
ଶିଳ୍ପାଳମାନଙ୍କର ନଳା ତନ୍ତ ବ୍ୟାଖ୍ୟା କର ।

OR

ବିନ୍ୟା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

(a) Syconoid canal system

ସାଇକନ୍ଦ କେନାଲ ତନ୍ତ

(b) Structure of Ctenophora

ପାନିଆ ଥିବା ପ୍ରାଣୀଙ୍କ ଗଠନ

4. Define and discuss polymorphism. 8
ସଂଜ୍ଞା ସହ ବହୁରୂପିତା ଆଲୋଚନା କର ।

OR

ବିନ୍ୟା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

(a) Anthozoa

ଆନ୍ଥୋଜୋଆ

(b) Coral reef

ପ୍ରବାଳ ପ୍ରାଚୀର

5. Elucidate the life cycle of *Taenia solium*. 8
ଚୈନିଆ ପୋଲିଆମ୍ବର ଜୀବନ ଚକ୍ର ଦର୍ଶାଅ ।

OR

ବିନ୍ୟା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

(a) Cercaria

ସର୍କାରିଆ

(b) Trematoda

ଟ୍ରିମାଟୋଡ଼ା

6. Describe the life cycle of *Ascaris*. 8
ଗୋଇକ୍ସିନିର ଜୀବନଚକ୍ର ବର୍ଣ୍ଣନା କର ।

OR

ବିନ୍ୟା

Write notes on the following : 4×2 = 8

ନିମ୍ନଲିଖିତର ବିବରଣୀ ଲେଖ ।

(a) Filariasis

ଫିଲାରୀସିସ

(b) Sexual dimorphism in *Ascaris*

ଗୋଇକ୍ସିନିର ଲିଙ୍ଗୀୟ ବିଭିନ୍ନତା

❖

RW – 51/3 (7,000)

(4)

+3-IS-CBCS-Sc.(H)
Core-1 — Zool

RW – 51/3

(3)

Contd.

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+3-1-S-CBCS(MS)-Science (Hons)-
GE-1.1-ZOOLOGY

2019

Time : As in Programme

Full Marks : 60

Answer from all the Parts as directed. The figures in the right-hand margin indicate marks.

Part - I

I. Answer the following questions with one word each: 1×8

- (a) What do you call a feeding polyp with a mouth and a long tentacle?
- (b) Name the larval form of *Aurelia*.
- (c) What is the infective stage of malaria parasite?
- (d) Mention the body symmetry of a Snail.
- (e) Name the phylum in which all the members are marine.

BBS_173_(4)

(Turn Over)

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(2)

- (f) Which type of migration is seen in *Hilsa*?
- (g) Which era is known as the golden age of reptiles?
- (h) Name a connective link between reptiles and birds.

Part - II

II. Answer any eight questions of the following within two to three sentences each: 1½×1

- (a) Name the locomotory organs of protozoans.
- (b) What is Pseudocoelom?
- (c) Mention the importance of polymorphism.
- (d) What is the nature of foot in mollusca?
- (e) Write the location and function of osphradium.
- (f) What is the significance of echinoderm larvae?
- (g) Write two differences between protochordates and chordates.
- (h) Write two important characters of cyclostomes.
- (i) What is the function of amnion?
- (j) Interpret the dental formula of man.

BBS_173_(4)

(Continued)

<https://www.odishastudy.com>

(3)

Part - III

3. Answer any **eight** questions of the following within **75** words each or draw labelled diagrams wherever specified : 2×8
- (a) What do you mean by singet ring stage ?
 - b) Write the general characters of cnidarians.
 - (c) Draw a labelled diagram of mature proglottid of *Taenia solium*.
 - (d) State the characters of auricularia larva.
 - (e) Explain the excretory structures of annelids.
 - (f) Write the social organisation in honey bee.
 - (g) Define Osmoregulation.
 - (h) Explain anadromous migration with example.
 - (i) What are the characters of primates ?
 - (j) Explain the features those help the birds for flight.

Part - IV

4. Answer the following questions within **500** words each (Draw diagrams wherever necessary): 6×4
- (a) Discuss the structure and function of canal system in Porifera.

OR

(4)

Give an account of parasitic adaptations in helminths.

- (b) Describe the process of torsion in gastropods.

OR

Discuss the magnitude of metamerism in annelids.

- (c) Give an account of parental care in amphibians.

OR

Describe the adaptations for terrestrial mode of life.

- (d) Give an account of origin of reptiles.

OR

Discuss the structure of a typical mammalian tooth. Add a note on their function.

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03/11/2020

+3(1st Sem) 2019

Zoo-H-I NC

Time: 1½ hour

Marks 40

Answer all questions. The figures in the right hand margin indicate marks

1. Answer any ten of the following questions : 10×2

- ✓ (a) Write the route of entry of water in syconoid canal system in scypha.
- ✓ (b) Write the characteristic features of class ciliata of phylum- protozoa.
- ✓ (c) What is nematocyst? Write its importance.
- ✓ (d) What is metagenesis? Illustrate it with an example.
- ✓ (e) Give a note on factors affecting coral reef.
- ✓ (f) What is exflagellation? Where does it take place in the life cycle of plasmodium?
- ✓ (g) What are flame cells?
- ✓ (h) Write some important parasitic adaptations of *Taenia solium*.
 - i) What is periodicity of microfilariae? <https://www.odishastudy.com>
- ✓ (j) What are distinguishing features of male and female *Ascaris* ?
- ✓ (k) Write the number classes found in phylum platyhelminthes.
- ✓ (l) What is Muhlberg gland? Write its functions.

Answer any two questions of the following : 10×2

- ✓ (a) Give a comparative account of different types of canal system in poriferan
- ✓ (b) Discuss the life cycle of *Plasmodium vivax*
- c) What is polymorphism? Give a brief note of polymorphism in Cnidaria.
- d) Discuss the evolutionary significance of Ctenophore.
- e) Write the general characteristics Platyhelminthes and classify them up to classes.

05/11/2020

+3(1st Sem) 2019

Zoo-H-II NC

Time: 1½ hour

Marks: 40

Answer all questions. The figures in the right hand margin indicate marks

1. Answer any ten of the following questions : 10×2

- (a) Differentiate between detritus and grazing food chain.
- (b) List three density-dependent factors and three density-independent factors that can limit the growth of a population.
- (c) Write two important differences between gaseous and sedimentary cycle.
- (d) Give a brief comparative account of r and k selection strategies of species.
- (e) What is species diversity? How does it influence the stability of an ecosystem?
- (f) Discuss the different types of survivorship curve with suitable example. <https://www.odishastudy.com>
- (g) What is the law of limiting factors? Explain it with an illustration.
- (h) What is vertical stratification? Explain it with an example.
- (i) What is critical value? What is its importance in hypothesis testing?
- (j) What are measures of central tendency? What is their significance?
- (k) Write two characteristics of seral community.
- (l) Write two advantages of representing biological data as frequency polygon.

2. Answer any two questions of the following : 10×2

- a) Discuss how energy flows through the ecosystem.
- b) What is biogeochemical cycle? Give a detailed account of nitrogen cycle.
- c) Discuss Gauss principle of competitive exclusion with a laboratory example.
- d) Give a detailed note on density-dependent factors of population regulation.
- e) What is primary succession? Describe theories pertaining to climax community.
- f) Give an account community characteristic.

-X-

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2021

Time :As in Programme

Total Marks : 25+60

The figures in the right-hand margin indicate marks.

Draw labelled diagram wherever necessary.

Group-A (Practical Component)

1. Answer the following questions within two or three sentences each. (2.5x10= 25)
- a) What are pseudopodia?
 - b) Define Mastigophora. Give one example.
 - c) What are sporozoites?
 - d) What was choanoflagellates?
 - e) Define metagenesis.
 - f) What is Atoll reef?
 - g) Define metacercaria larva.
 - h) What is a scolex?
 - i) What are microfilariae?
 - j) What are obligatory parasites?

Group-B (Theory Component)

2. Write notes on any Five of the following within 50 words each. (6x5 = 30)
- a) Osmoregulation in protozoa.
 - b) Pathogenicity of Entamoeba histolytica.
 - c) Types of pseudopodia.
 - d) Rhagon type of canal system.
 - e) Evolutionary significance of Ctenophora.
 - f) Medusa
 - g) Pathogenicity of Fasciola hepatica.
 - h) **Proglottid**
 - i) Ascaris Lumbricoides is a monogenetic parasite. Justify.
 - j) General characteristic of nemathelminthes.

3. Answer any three questions within 300 words each.

(10x3=30)

a) Give an account of locomotion in protozoa.

OR

Describe canal system in Porifera.

b) Describe polymorphism in Cnidaria.

OR

What are coral reefs? Write a note on various theories of reef formation.

c) Elucidate general characteristic of platyhelminths. Classify platyhelminths up to Class.

OR

Discuss life cycle of *Taenia solium*.

d) Discuss the life cycle and pathogenicity of *Wuchereriabancrofti*.

OR

Discuss parasitic adaptation of helminths.

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+3-I-S-CBCS(MS)-Sc(H)-Core-II-(Zoo)

2021

Time :As in Programme

Total Marks : 25+60

The figures in the right-hand margin indicate marks.

Draw labelled diagram wherever necessary.

Group-A (Practical Component)

1. Answer the following questions within two or three sentences each. (2.5x10=25)

- Trophic level.
- Stenotherm.
- Biogeochemical cycles
- Population dispersal.
- Biotic potential.
- Keystone species
- Serial communities
- Data
- Tabulation
- Null hypothesis.

Group-B (Theory Component)

2. Write notes on any Five of the following within 50 words each. (6x5=30)

- Food chain.
- Laws of thermodynamics.
- Red data book.
- Differentiate K strategy and r-strategy.
- Gause principle.
- Community stratification.
- Ecotone.
- Polyclimax theory
- Histogram.
- Chi-square test.

3. Answer any three questions within 300 words each. (10x3=30)

a) Discuss energy flow through ecosystem. What is the efficiency of energy transfer in ecosystem?

OR

What are ecological pyramids? Discuss various types of ecological pyramids.

b) Define population. Discuss the various attributes of population.

OR

What is interspecific interaction? Discuss parasitism.

c) Discuss species diversity. Elucidate factors affecting species diversity.

OR

What is ecological succession? Discuss the pattern and general process of ecological succession.

d) Define central tendency. Discuss the various methods used for measuring central tendency.

OR

What is hypothesis? Discuss student's t-test as a statistical tool for measuring hypothesis.

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2021

Time :As in Programme

Total Marks : 25+60

The figures in the right-hand margin indicate marks.

Draw labelled diagram wherever necessary.

Group-A (Practical Component)

1. Answer the following questions in two to three sentences each. (2.5x10=25)
- a) What is Indirect development ?
 - b) What is the Sporogony ?
 - c) What is pseudo coelom ?
 - d) What is Schizogony ?
 - e) How respiration occurs in star fishes?
 - f) What is osmo regulation?
 - g) What is dentition?
 - h) What are calcareous spicules ?
 - i) What is Amnion ?
 - j) Give two characters of mammalia.

Group-B (Theory Component)

2. Answer any Five questions within 50 words each. (6x5=30)
- a) What is rosette stage ?
 - b) What is Parasitism?
 - c) What are Gravid Proglottids ?
 - d) What is metamerism ?
 - e) Give two characters of Echinodermata.
 - f) What is adaptation?
 - g) What are Primates?
 - h) What are Gastrozooids ?
 - i) What is Torsion?
 - j) What are ossicles ?

3. Answer any three questions within 300 words each. (10x3=30)

a) Describe canal system and its function in porifera.

OR

Describe asexual cycle of plasmodium vivax.

b) Give account of larval forms of Echinodermata.

OR

Describe process of pearl formation in mollusca.

c) What is migration? Describe migration in fishes?

OR

Describe parental Care in Amphibia.

2 / 2

d) Describe flight adaptation in Birds.

OR

What is dentition? Discuss Dentition in mammals.

Total Pages : 7

I-CC-Zoo-I

(2)

2021

ZOOLOGY

(Honours)

Paper-CC-Zoo-I

[*Non-Chordates-I : Protista to Pseudocoelomates*]

Full Marks : 60

Time : 3 hours

Answer all questions.

The figures in the right-hand margin indicate marks.

PART—I

1. Fill in the blanks : 1 × 8

(a) In Sponge, the water exit by _____.

(b) The mode of nutrition in Amoeba is known as _____ Nutrition.

(c) Mouth part of Medusa is known as _____.

(d) _____ is the larva of Ctenophora.

(e) Secondary host of Taenia solium is _____.

(f) Viviparity is seen in _____ nematode.

(g) The diseased condition caused by Wuchereria is called _____.

(h) The cause of 'Liver rot' is sheep by _____.

(Turn Over)

<https://www.odishastudy.com>

(Continued)

<https://www.odishastudy.com>

(3)

PART—II

2. Answer any *eight* of the following in two or three sentences : 1.5 × 8

- (a) What is mode of nutrition in Euglena ?
- (b) What is the product of exoerythrocytic schizogony ?
- (c) What is Schieffner's granules ?
- (d) What is spicules ?
- (e) Define Haxacanth.
- (f) Define Apolysis.
- (g) Which is the connecting link between plant and animal ?

I-CC-Zoo-1

(Turn Over)

<https://www.odishastudy.com>

(4)

(h) Which is the infective stage of *Ascaris* for man ?

(i) What is metagenesis ? Describe.

(j) What is Elephantiasis ?

PART—III

3. Answer any *eight* of the following within 75 words : 2 × 8

- (a) Define Ookinete stage of Plasmodium.
- (b) Explain the thermataxis movement of Amoeba.
- (c) What are the different modes of locomotion in protista ?

I-CC-Zoo-1

(Continued)

<https://www.odishastudy.com>

(5)

- (d) Write parasitic adaptation of Fasciola.
- (e) Write characters of sexual dimorphism in *Ascaris lumbricoides*.
- (f) Write different types of Malaria and its causative organism.
- (g) Describe the different types of coral reef formation.
- (h) Write four distinct characters of phylum Nematohelminthes.
- (i) Write the microfilaria larval adaptation. <https://www.odishastudy.com>
- (j) Define Microfilariac.

(6)

PART—IV

4. Answer any *four* of the following within 500 words each : 6 × 4

- (a) Describe polymorphism in Cnidaria.
- (b) Elaborate on life cycle and pathogenicity of *Plasmodium vivax*.
- (c) Describe various canal system in Phylum Porifera.
- (d) Describe life cycle of fasciola hepatica.
- (e) Write general characteristics of phylum Cnidaria and its classification up to class.

(7)

- (f) Discuss the evolutionary significance of ctenophore.
- (g) Describe the life cycle of *Wuchereria bancrofti*.
- (h) Describe life cycle of *Taenia solium*.
- (i) Discuss the parasitic adaptations in *Ascaris lumbricoides*.

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2021
ZOOLOGY
(Honours)

Paper-CC-Zoo-II

(*Principles of Ecology*)

Full Marks : 60

Time : 3 hours

Answer **all** questions.

*The figures in the right-hand margin
indicate marks.*

PART—I

1. Fill in the blanks :

1 × 8

(a) The carrying capacity of a population is chiefly controlled by _____.

<https://www.odishastudy.com>

(b) The study of interaction between individuals and its environment is known as _____.

(c) Arrangement of species into different vertical layers is termed _____.

(d) The true microdecomposer considered are _____ and _____.

(e) The total of all observations divided by number of observations is called _____.

(f) The transition area between two biomes is known as _____.

(g) Any hypothesis which is tested for the purpose of rejection under the assumption that it is true is called _____.

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(3)

- (h) The term ecosystem was introduced by _____.

PART—II

2. Answer any *eight* questions within two to three sentences : 1.5 × 8

- (a) What do you mean by Synecology ?
- (b) Define Gause principle.
- (c) Define Simpson's diversity index.
- (d) Define central tendency.
- (e) What is parasitoidism ?
- (f) Give the principal components of biogeochemical cycles.

<https://www.odishastudy.com>

(4)

- (g) What are class intervals ? Narrate.

- (h) Define stratified sampling.

- (i) What is keystone species ?

- (j) What is biological data ?

PART—III

3. Answer any *eight* questions within 75 words each : 2 × 8

- (a) Differentiate between primary productivity and Secondary productivity of ecosystem.
- (b) Differentiate between crude density and specific density.

<https://www.odishastudy.com>

(5)

- (c) Draw the diagram of different types of age pyramid.
- (d) Differentiate between Food chain and Food web.
- (e) What is biological dispersal of organism? How it varies from dispersion?
- (f) What is nudation and write its different causes.
- (g) Give diagram of Nitrogen cycle.
- (h) Explain population interaction.
- (i) What is measure of central tendency? Discuss. <https://www.odishastudy.com>
- (j) Find the geometric mean of 2, 4 and 8.

I-CC-Zoo-II

(Turn Over)

(6)

PART—IV

4. Answer any *four* questions within 500 words each : 6 × 4
- (a) Explain Light as Physical factor.
 - (b) What are law of limiting factors? Discuss.
 - (c) Describe exponential and Logistic theory of population growth.
 - (d) Write Gause's principle of exclusion criteria with suitable examples.
 - (e) Discuss the zonation and vertical stratification of a community.

<https://www.odishastudy.com>

(7)

- (f) Find the mean deviation about the median for the following data :
3, 9, 5, 3, 12, 10, 18, 4, 7, 19, 21
- (g) Describe different types of inter and intraspecific competition among population.
- (h) Describe ecological succession with one example.

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SAMPLE QUESTIONS
+3 UG I-SEMESTER, ZOOLOGY (H)

Full Marks-60
Time-3 hours

Answer all questions
Give diagrams wherever necessary

PART-I

Q.1. One word answer or fill in the blanks (answer all)

[1x8=8]

PART-II

Q.2. Answer any 8 within 2 to 3 sentences out of 10 questions

[1.5x8=12]

PART-III

Q.3. Answer any 8 within 75 words out of 10 questions

[2x8=16]

PART-IV

Q.4. Long question answer (within 500 words): 4 Nos.

[4x6=24]

(a)

OR

(b)

PRACTICE QUESTIONS

PART-I (1 mark each)

Q.1. One word answer or fill in the blanks

- i. Organ of defense in protozoans is _____.
- ii. The main function of contractile vacuole is _____.
- iii. The free-swimming larva of sponges is known as _____.
- iv. Which protozoan causes African sleeping sickness?
- v. The shorter incubation period observed in which malaria parasite?
- vi. The ctenophore *Cestum* is commonly known as _____.
- vii. The relationship between sea anemone and hermit crab is known as _____.
- viii. A coral reef lying close to the shore of some volcanic islands is known as _____.
- ix. Colloblasts are _____ cells
- x. Write the scientific name of filarial worm.
- xi. *Leucosolenia* have _____ type of canal system.
- xii. Name the holdfast organ of *Taenia solium*.
- xiii. Name the ring like stage of *Plasmodium* in RBC.
- xiv. Cliona is included in class _____.
- xv. Name the yellow or orange coloured dots in plasmodium-infected erythrocytes.
- xvi. Filarial larva can be collected from which sample of human?
- xvii. Enterobiosis disease is caused by _____.
- xviii. Syncytial epidermis is the characteristic feature of which organism?
- xix. Name the helminth that enters the body of a man through the skin of barefoot, when walks in the contaminated soil.
- xx. In sponges, Choanocytes or amoebocytes are transformed into _____.

Answer keys

- | | | |
|----------------------------------|--------------------------------|--|
| i. Trichocysts | viii. Fringing reef | xv. Schuffner's dot |
| ii. Osmoregulation | ix. Adhesive | xvi. Peripheral blood at mid night |
| iii. Parenchymula | x. <i>Wuchereria bancrofti</i> | xvii. Pinworm/
<i>Enterobius vermicularis</i> |
| iv. <i>Trypanosoma gambiense</i> | xi. Asconoid | xviii. <i>Ascaris</i> |
| v. <i>Plasmodium falciparum</i> | xii. Scolex | xix. <i>Ancylostoma</i> |
| vi. Venus's girdle | xiii. Singnet ring stage | xx. Oocytes |
| vii. Commensalism | xiv. Demospongia | |

PART-II

Q.2. Answer in 2 to 3 sentences (each carry 1.5 marks)

- i. What are the locomotory structures found in protozoans?
- ii. Write two important characteristic of Demospongia. Give one example.
- iii. What are Ctenophores? Give one example.
- iv. What are the two types of nematocysts in metridium?
- v. What is polymorphisim?
- vi. In which zooid of *Obelia* does sexual reproduction occur?
- vii. What are the sense organs of *Aurelia*?
- viii. What are flame cells?
- ix. To which larva does miracidium larva give rise to?

- x. What is schizogony?
- xi. Define conjugation in paramecium.
- xii. Write at least three parasitic adaptations of helminthes.
- xiii. What is the difference between cilia and flagella?
- xiv. Write down the symptoms of amoebic dysentery.
- xv. What is incubation period in malaria? Name the malaria parasite having longest incubation period.
- xvi. How is the malaria transmitted to human beings?

PART-III

Q.3. Answer within 75 words (each carry 2 marks)

- i. How many types of mesenteries are found? What is the function of mesenteries?
- ii. What is lobopodia? Where it is found?
- iii. Write about Euglenoid movement
- iv. Write short notes on Ephyra, Tentaculocyst
- v. Write short notes on coral reef.
- vi. Describe types of corals.
- vii. Justify that coelenterates are at tissue level of body organization.
- viii. Which two forms occur in members of phylum coelenterate?
- ix. Write important parasitic adaptations of *Fasciola*.
- x. Differentiate between polyp and medusa.
- xi. Write note on sporozoite.
- xii. Write note on Cestode.

PART-IV

Q. Long questions (each carry 6 marks)

1. Give an account on reproduction in protozoa
2. Describe the life cycle of *Plasmodium vivax* in man.
3. Discuss the canal system in sponges.
4. Describe in details the structure of polyp of *Obelia* and compares it with its medusa.
5. Describe the structure and affinities of Ctenophora.
6. What is the process of coral formation? Give an account of principal corals.
7. Write an essay on corals and coral reefs.
8. Classify Platyhelminthes with suitable examples.
9. What is digenic life cycle? Explain it with reference to life history of *Fasciola hepatica*.
10. Describe the reproductive system of *Fasciola hepatica*.
11. What is a gravid proglottid? Give an account of the characteristic features and reproduction in *Taenia solium*.
12. Describe the life history of *Taenia solium*.
13. Discuss the life cycle of *Ascaris lumbricoids*.
14. Discuss the life cycle of *Wuchereria bancrofti*.
15. Classify nematohelminthes up to classes.

SAMPLE QUESTIONS

+3 UG I-SEMESTER, ZOOLOGY (H)

PAPER: CC-II

Full Marks-60

Time-3 hours

Answer all questions
Give diagrams wherever necessary

PRACTICE QUESTIONS

PART-I (1 mark each)

Q.1. One word answer or fill in the blanks

1. The natural residence of every organism is known as _____.
2. The name of the feature that allows organisms to survive in the conditions of its habitat is _____.
3. Shelford's law of tolerance is named after _____.
4. Wide variety of living organisms is called _____.
5. Hyenas and Vultures are _____.
6. A mutual relationship between two organisms, where both of them are benefitting from watch other is called _____.
7. Reproduce quickly is a feature of _____ selected species.
8. The term ecosystem was proposed by _____.
9. Carbon is a/an _____ component of ecosystem.
10. The pyramid of energy is always _____.
11. The pyramid of numbers in grassland ecosystem will be _____.
12. The pyramid of biomass is inverted in _____.
13. The pyramid of numbers in a single tree is _____.
14. The mean of the data a, a, a, a will be _____.
15. The mean of the 10 values is 20, if we add a value 10 in each observation then mean for the new value will be _____.
16. The mean of the 10 values is 20, if we add a value 10 in each observation then mean for the new value
17. will b
18. The mean of the 10 values is 20, if we add a value 10 in each observation then mean for the new
16. Intraspecific competition is competition among ?
17. Demography is the study of statistics that affect ?
18. What factor does determine the carrying capacity of a population?
19. Organisms with high intrinsic growth rate have what kind of generation time?
20. A sequence of species through which organic molecule in a community pass is called as ?
21. Energy and nutrient enter a community by whom?
22. The rate at which new tissues are formed in producer's is known as ecosystem's ?
23. An ecological pyramid of biomass is often inverted in which ecosystem?
24. What is the main reservoir of N₂ in biosphere?

25. Which kingdom contains species that can convert ammonia to nitrite and then nitrite to nitrate?
26. When “n” is an odd number then median is defined as ?
27. Standard deviation is denoted by ?
28. Conversion of atmospheric N₂ to NH₃ is known as ?
29. Conversion of organic Nitrogen into Ammonia is known as?
30. When energy passes through one trophic level to another energy being lost in which form ?

Answer Keys

- | | | |
|---------------------------------|-----------------------|------------------------|
| 1. Habitat | 2. Adaptation | 3. Ernest Shelford |
| 4. Biodiversity | 5. Scavengers | 6. Mutualism |
| 7. r-Selected | 8. Tansley | 9. Abiotic |
| 10. Upright | 11. Upright | 12. Aquatic Ecosystem |
| 13. Spindle shaped | 14. a | 15. 30 |
| 16. Individuals of a population | 17. Population growth | 18. Limiting resources |
| 19. Short | 20. Food chain | 21. Producer |
| 22. Net primary productivity | 23. Aquatic | 24. Atmosphere |
| 25. Monera | 26. Middle value | 27. Sigma |
| 28. Nitrogen fixation | 29. Ammonification | 30. Respiration (Heat) |

PART-II

Answer in 2-3 sentences (each carry 1.5 marks)

1. What is autecology?
2. What is synecology?
3. Give two examples of detritivores.
4. What is food chain?
5. Define scavenger.
6. What is ammonification?
7. Define density dependent factors.
8. Give any 2 examples of r-Selected species.
9. Define commensalism?
10. What is edge effect?
11. Define mean/median/mode.
12. How mean, median and mode are related?
13. Give 2 examples of ordinal data.
14. Define range?
15. Write the formula to find out the median of even data set.

PART-III

Answer in 75 words (each carry 2 marks)

1. Define ecosystem.
2. Food chain
3. Detritus food chain.
4. Grazing food chain

5. Food web
6. Wild life conservation.
7. Wild life management
8. Logistic growth curve.
9. Define predation with an example.
10. Derive species richness.
11. Notes on r-strategic species.
12. Notes on ecotone.
13. Quartile deviation
14. Notes on Mean/median/mode.
15. Standard deviation.

PART-IV

Long questions (each carry 6 marks)

1. What is ecosystem? Describe about it with an example.
2. Define food web with proper example.
3. What is biogeochemical cycle? Explain about N₂ cycle.
4. Give an account of wild life conservation and management.
5. What is growth curve? Explain about logistic growth curve.
6. Explain about different types of population interaction.
7. Define ecological succession with an example.
8. Give an account of various biological data.
9. Calculate the net reproductive rate from the given life table below

Age specific groups	No. of individuals	Age specific fertility
0	2000	12
1	1000	10
3	800	10
4	500	6
5	400	5
6	100	2

10. You grow 20 crystals from a solution and measure the length of each crystal in millimeters. Here is your data:

9, 2, 5, 4, 12, 7, 8, 11, 9, 3, 7, 4, 12, 5, 4, 10, 9, 6, 9, 4

Calculate the sample standard deviation of the length of the crystals.

GROUP – A

VERY SHORT TYPE QUESTIONS. (CARRYING 1 MARK)

1. The protistan genome has _____ embedded in the cytoplasm.

Ans: Membrane-bound nucleoproteins

2. The protist that reproduces both by binary fission and conjugation is _____ .

Ans: Paramecium

3. A few protists possess structures to regulate their water content. They are _____ .

Ans: Contractile vacuoles

4. Micronucleus and macronucleus are the characteristic features of _____ protozoa.

Ans: Vorticella and Paramecium

5. The cell walls form two thin overlapping shells in which group of organisms such that they fit together _____ .

Ans: Chrysophytes

6. Whorling whips are named so because of _____ .

Ans: Mode of movement

7. Red tide is caused by _____ , _____ , _____ .

Ans: Noctiluca, Ceratium, Gonyaulax

8. In Dinoflagellates, the reserve food is _____ .

Ans: Starch

9. Protozoa which completely lack trophic organelles are classified under _____ .

Ans: Ciliophora

10. Highest degree of differentiation of the body is reached in _____ .

Ans: Paramecium

11. The primary grouping of protozoa is based upon their _____ .

Ans: Mode of locomotion

12. African sleeping sickness is caused by _____ .

Ans: *Trypanosoma gambiense*

13. An example of a dimorphic protozoan is _____ .

Ans: *Polystomella*

14. Besides erythrocytes, the plasmodium attacks one more type of cells in our body; these are _____ .

Ans: Hepatocytes

15. Contractile vacuole is present in _____ protozoans.

Ans: Fresh water protozoans

16. In Paramecium, the trichocysts are used for _____ .

Ans: Defence

17. The intermediate host of malarial parasite is _____ .

Ans: Female anopheles

18. The most widely accepted theory of locomotion in amoeba is _____ .

Ans: Mast's sol-gel theory

19. Locomotor organelles in the parasitic protozoa of class sporozoa are _____ .

Ans: Absent

20. Entamoeba can be identified from amoeba due to the absence of _____ .

Ans: Contractile vacuole

21. The mode of nutrition in Paramecium is _____ .

Ans: Holozoic

22. A major evolutionary advance exhibited by protozoan cell as contrasted with a bacterium _____ and _____ .

Ans: Presence a nucleus and Presence of extensive system of cytoplasmic organelles.

23. Sleeping sickness in man is caused by trypanosome by the bite of the infective _____ .

Ans: Both male and female tse-tse fly

24. Protists survive in _____ .

Ans: Aquatic regions

25. Diatoms are grouped under _____ .

Ans: Chrysophytes

26. Cell wall in diatoms is made of _____ .

Ans: Silica

27. Diatomaceous earth can be used as a pest control because _____ .

Ans: it snatches out lipids from the outermost waxy layer of pests called cuticle and makes them dry which results in their death

28. Diatoms store food as _____ .

Ans: Oil

29. Cell wall in dianoflagellates contain _____ .

Ans: Cortex

30. A Protein rich layer called pellicle which makes their body flexible found in _____ .

Ans: Euglenoids

31. _____ group of Protista are heterotrophs and live as predators or parasites.

Ans: Protozoans

32. _____ Protozoans move and capture their prey by putting out pseudopodia false feet.

Ans: Amoeboid

33. Sleeping sickness is caused by _____ .

Ans: Trypanosoma

34. _____ causes malaria.

Ans: Plasmodium

35. _____ disease has a staggering effect on human population.

Ans: Malaria

36. Link between plants and animals is _____ .

Ans: Euglena

37. _____ locomotory organ of protozoans.

Ans: Parapodia

38. In Amoeba, excretion occurs through _____ .

Ans: Plasmalemma

39. Entamoeba differs from amoeba in not having _____ .

Ans: Contractile vacuole

40. Amoeba was described in detail by _____ .

Ans: Hirshfield

41. In Amoeba, nutrition is _____ .

Ans: Holozoic

42. Amoeba was discovered by _____ .

Ans: Rosenhof

43. Living amoeba is _____ .

Ans: Translucent

44. When touched with needle, Amoeba will _____ .

Ans: Move away

45. Posterior end of Amoeba is characterized by _____ .

Ans: Lack of food vacuoles

46. _____ is the infective form of the malaria parasite.

Ans: Sporozoite

47. Trophozoites, schizonts, and gametocytes of all the malarial parasites are seen in the peripheral blood smear except; _____

Ans: Plasmodium falciparum

48. Blackwater fever is a special manifestation of malaria caused by; _____

Ans: P. falciparum

49. After sporozoite gain entrance to the human body, it undergoes a developmental cycle first in the liver than in RBC, only after which fever is seen. This incubation period varies between plasmodium species, and _____ species has the longest incubation period.

Ans: *Plasmodium malariae*

50. Crescent-shaped or banana-shaped gametocytes are seen in infection with _____.

Ans: *Plasmodium falciparum*

51. A clinical situation in which the immune system or a therapy failed to eliminate all the Plasmodium spp infected erythrocytes and numbers of Plasmodium spp in RBCs begin to increase again with subsequent clinical symptoms is called; _____ .

Ans: Recrudescence

52. A coelenterate that is commonly referred to as 'fresh water polyp' is _____ .

Ans: Hydra

53. The special character of Coelenterata occurring only in them is called _____ .

Ans: Nematocysts

54. The characteristic larva in coelenterates is _____ .

Ans: Planula

55. Oxygen in coelenterates is supplied to different tissues by _____ .

Ans: Diffuses through integuments

56. The class of Coelenterata in which the medusa and polyp both are found in one animal is _____ .

Ans: Hydrozoa

57. This phylum shows the presence of nerve cells and absence of nerves _____ .

Ans: Coelenterata

58. The characteristic feature of Coelenterata is _____ .

Ans: Gastrovascular cavity

59. Nematocysts are the specialized cells found in the members of the phylum _____ .

Ans: Cnidaria

60. Tentacles of Hydra help in _____ and _____ .

Ans: Locomotion and food capturing

61. Hydra is put under the phylum Cnidaria because it has _____ .
 Ans: Cnidoblasts
62. The poisonous fluid present in the nematocysts of Hydra is _____ .
 Ans: Hypnotoxin
63. Nematocysts are the organs of _____ .
 Ans: Defence
64. Hydra prevents self fertilization by being _____ .
 Ans: Protandrous
65. The planula larva is found in the life history of _____ , _____ , and _____ .
 Ans: Hydrozoan, Anthozoan and Scyphozoan
66. Polymorphic cnidarians are the members of the class _____ .
 Ans: Hydrozoa
67. Coral reef forming coelenterates belong to the class _____ .
 Ans: Actinozoa
68. Among coelenterates medusoid individuals are absent in members of the class _____ .
 Ans: Anthozoa
69. Ephyra is the larval form of _____ .
 Ans: Aurellia
70. Six septa or six mesenteries are characteristic of _____ .
 Ans: Obelia
71. Sea anemone is _____ and _____ animal.
 Ans: Diploblastic and radially symmetrical animal
72. The most primitive invertebrate to possess musculo- epithelial cells and nerve cells is _____ .
 Ans: Hydra
73. The first invertebrates to develop a true nervous system are _____ .
 Ans: Coelenterates
74. Fossil cnidarians have been found in rocks formed about _____ years ago.
 Ans: 580 millions years ago
75. Nematocyst are found in _____ .
 Ans: coelenterates
76. Corals may have been present shortly before _____ year ago.
 Ans: 490 years ago
77. Cnidarian exhibits _____ .
 Ans: polymorphism
78. Cnidarians contain body cavity & known as _____ .
 Ans: Coelenteron.
79. Locomotion in medusa is by _____ .
 Ans: muscles.
80. Hydractinian commonly known as _____ .
 Ans: Hedgehog hydroid
81. In pennaria the medusae develops on the side of _____ .
 Ans: hydrant
82. _____ the most suitable terminology to designate life cycle of Obelia.

Ans: Metagenesis

83. _____ group is commonly known as 'sea stick'.

Ans: Coelenterata

84. _____ does not belong to Phylum Coelenterata.

Ans: Sea cucumber

85. A coelenterate that is commonly referred to as 'fresh water polyp' is _____.

Ans: Hydra

86. _____ is a special character of Coelenterata occurring only in them.

Ans: Nematocysts

87. The characteristic larva in coelenterates is _____.

Ans: Planula

88. Oxygen in coelenterates is supplied to different tissues by _____.

Ans: Diffuses through integuments

89. The class of Coelenterata in which the medusa and polyp both are found in one animal is _____.

Ans: Hydrozoa

90. The phylum _____ shows the presence of nerve cells and absence of nerves.

Ans: Coelenterata

91. _____ is a characteristic feature of Coelenterata.

Ans: Gastrovascular cavity

92. Platyhelminthes are best described as _____.

Ans: flatworms, triploblastic, acoelomate animals

93. An important character which platyhelminthes share with the acnidarians is _____.

Ans: single cavity communicating with the exterior

94. Free living platyhelminthes forms belong to the class _____.

Ans: Turbellaria

95. In helminthes, flame cells are component of their _____.

Ans: excretory system

96. Fasciola hepatica is an endoparasite that lives in the _____.

Ans: liver of sheep

97. The intermediate host in the life cycle of Taenia saginata is _____.

Ans: Cattle

98. Taenia solium lacks alimentary canal because _____.

Ans: it has saprozoic mode of feeding

99. _____ is called 'Blood fluke' of man.

Ans: Schistoma

100. Rhabdites are present in the cells of epidermis in _____.

Ans: Turbellaria

101. Cilia help in locomotion over solid surfaces in _____.

Ans: Turbellaria

102. _____ swim by ciliary action.

Ans: Miracidium larva of Fasciola

103. In the life cycle of Liver fluke the sheep get infection when they ingest _____.

Ans: encysted cereriae

104. A well developed nervous system and sense organs are present in members of the class _____ .

Ans: Turbellaria

105. Miracidium is a larval stage in the development of _____.

Ans: *Fasciola hepatica*

106. The intermediate host of *Fasciola* is _____ .

Ans: *Limnaea*

107. The body cavity of *Ascaris* is pseudocoel because _____ .

Ans: It is bound externally by muscle layer and internally by intestines

108. *Ascaris lumbricoides* lives in the intestine of _____ .

Ans: *Homo sapiens*

109. The life span of *Ascaris* is _____ .

Ans: 1-2 Years

110. The infected stage of *Ascaris* is _____.

Ans: Second Juvenile

111. The exterior of *Ascaris* is covered by _____ .

Ans: Epidermis

112. The phenomenon by which male and female sexes could be differentiated morphologically is called _____ .

Ans: Sexual dimorphism

113. The disease caused by the hook worm is called _____.

Ans: Elephantiasis

114. Elephantiasis caused by _____ .

Ans: *Wucheria bancrofti*

115. Cuticle in *Ascaris* is an adaptation for _____ .

Ans: Parasitism

116. *Ascaris* normally inhabits the lumen of _____ .

Ans: Small intestine

117. Respiration of *Ascaris* is _____ .

Ans: Anaerobic

118. The mode of nutrition in *Ascaris* is _____.

Ans: Saprozoic

119. Sperms of *Ascaris* are characteristic because they are _____.

Ans: amoeboid shape

120. _____ has no alternate host.

Ans: *Ascaris lumbricoides*

GROUP – B

SHORT TYPE QUESTIONS(CARRYING 1.5 AND 2 MARKS)

1. Write five important general characteristics of Protista.
2. Write five important general characteristics of protozoa.

3. Write short note on amoeba .
4. Write a short note on Euglena.
5. Write a short note on sexual life cycle of *Plasmodium vivax*.
6. Write a short note on asexual life cycle of *Plasmodium vivax*.
7. Write a short note on pathogenicity of *Plasmodium vivax*.
8. Write a short note on prevention and control of malaria.
9. Give a short note on Cnidaria.
10. Give five general characteristics of Cnidaria.
11. Give a short note on class Anthozoa.
12. Give a short note on class Scyphozoa.
13. Give a short note on class Hydrozoa.
14. Give a short note on poly/hydranth/gastrozoid.
15. Give a short note on medusa/Nectophore.
16. Give a short note on blastostyle/gonangium.
17. Write a short note on Alcyonium.
18. Write a short note on Gorgonia.
19. Write a short note on Madrepora.
20. Write a short note on Hydractinia.
21. Write a short note on Millepora.
22. Write a short note on Pennatula.
23. Write a short note on Physalia.
24. Write a short note on Velella.
25. Differentiate between poly and Medusa.
26. What is Metagenesis in Obelia?
27. What is the significance of metagenesis of Obelia?
28. What is plannula larva?
29. What are the gastrozooids?
30. What are the gonozooids?
31. What are the dactylozooids?

32. What is pneumatophores?
33. What is dimorphism?
34. What is trimorphism?
35. What is polymorphism?
36. What is highly modified polymorphism?
37. What is nectosome?
38. What is siphonosome?
39. Write the significance of polymorphism.
40. Write down the origin of polymorphism.
41. What is coral and coral reefs?
42. Write a short note on Hydrozoan corals.
43. Write down the importance of coral reefs.
44. Write a short note on red coral.
45. Write a short note on solitary coral.
46. Write a short note on Dead man's finger.
47. Write a short note on colonial coral.
48. What is sheep liver fluke?
49. Write a short note on *Fasciola hepatica*.
50. Write a short note on eggs of the *Fasciola hepatica*.
51. Write a short note on miracidium larva.
52. Write a short note on sporocyst larva.
53. What is redia larva?
54. What is cercaria larva?
55. What is metacercaria larva?
56. Write short note on *Taenia solium*.
57. What is the gravid segment of *Taenia solium*.
58. What is Cysticerus larva?
59. Write a short note on pathogenicity of Ascaris.
60. Write a short note on pathogenicity of Filariasis.

GROUP – D

LONG TYPE QUESTIONS (CARRYING 6 MARKS)

1. Describe briefly about the general characteristics of Euglena.
2. Give an brief account on the classification up to classes of protozoa.
3. Describe briefly about the general characteristics of Amoeba.
4. Give an brief account on the life cycle of *Plasmodium vivax*. Write down its pathogenicity.
5. Give an detailed account on the general characteristics of *Entamoeba histolytica*.
6. Give a brief account on locomotion in Protista with suitable examples.
7. Describe a detailed account on reproduction in Protista.
8. Give a detailed account on the general characteristics of Porifera.
9. Describe briefly about the classification of phylum Porifera.
10. Give a detailed account on the canal system of Porifera with suitable diagram.
11. Describe briefly the spicules in sponges.
12. Describe the general characteristics of Cnidaria with suitable examples.
13. Describe the general characteristics of Ctenophora with suitable examples. Write down the evolutionary significance of Ctenophora.
14. Give a detailed account on metagenesis in Obelia.
15. Describe the life cycle of Obelia in detail with suitable diagrams.
16. Mention the general characteristics of Ctenophora and what is it's relationship with Coelenterates?
17. Classify Ctenophora giving characters and examples of each group and discuss it's affinities.
18. Give a detailed account on Polymorphism in Cnidaria.
19. Mentioned the distinguished characters of the phylum Cnidaria. Classify the phylum giving diagnostic characters with the examples.
20. What is Metagenesis? Explain it with the help of a flow diagram.
21. What is coral? Describe types of coral reefs with suitable examples.
22. Describe corallite and explain how corals are formed.
23. Describe the various theories of formation of coral reefs.

24. Explain the importance of coral reefs and various threats possible to these reefs in details.
25. Describe the general characteristics of Platyhelminthes.
26. Describe briefly about the classification of platyhelminthes up to classes.
27. Describe the life cycle of *Fasciola hepatica* and it's pathogenicity with suitable diagrams.
28. Describe the life cycle of *Taenia solium* and it's pathogenicity with suitable diagrams.
29. Describe briefly the general characteristics of Nematelminthes.
30. Describe briefly about the classification of Nematelminthes up to classes.
31. Give a detailed account on the life cycle of *Ascaris lumbricoides* with suitable diagrams.
32. Give a detailed account on the life cycle of *Wuchereria bancroftii* with suitable diagrams.
33. What is Ascariasis? Describe it's lifecycle, pathogenicity, prevention and control.
34. What is Filariasis? Describe it's lifecycle, pathogenicity, prevention and control.
35. Describe briefly on the parasitic adaptation in helminthes.