+3 SEM-1(NEP)
ZOO-C-1(P-1)

DECEMBER, 2024
Invertebrates: Protista to Echinodermata

Time = 3 hours full marks-100

Figures in the right-hand side of margin indicates marks
Give illustrated diagrams wherever required

PART- I

1. Answer **all** with one-word answer or fill in the blanks: 1 x 10=10

   a. If a marine protozoan is placed in freshwater, its body will----------

   b. The unused haematin in Plasmodium forms the toxic malarial pigment called --------

   c. The canal system of Sycon is also known as ---------- system

   d. Segmentation of tapeworms is called ---------- in contrast to the true metamerism of Annelids and Arthropods

   e. Taeniasis is caused by ----------

   f. The largest number and variety of species is found in Phylum----------

   g. The major occurrence shell type in Pila is----------

   h. The number of brachiolar arms developed in Brachiolaria larva is----------

   i. Aristotle's lantern is found in ----------

   j. Attachment stage is lacking in ----------larva of Echinodermata

PART – II

2. Answer **all** questions within maximum 50 words each: 2x9=18

   a. Describe the Primary and secondary host of Plasmodium vivax.
   b. Write the names of different canal system in sponges.
   c. Mention the major evolutionary significance of Ctenophora
   d. Write any two identifying characteristics of Phylum Platyhelminthes
   e. What is metamerism?
   f. What are the two distinct stages of lifeform of Cnidarians?
   g. What is the social organization of termites?

h. Mention about the major evolutionary significance of Onychophora

i. What is torsion in Gastropoda?

PART -III

3.Answer any eight questions within 250 words each. 5x8=40

a. Briefly describe the asexual cycle of Plasmodium vivax

b. What is leuconoid type of canal system ?

c. Describe briefly what are nematocytes?

d. What are Drones?

e. What are the general characreristics of Phylum Annelida?

f. What is filariasis?

g. What is Septal nephridia?

h. What is Ommatidia?

i. Describe any 4 general characteristics of Phylum Mollusca

j. What is the evolutionary significance of trochophore larva?

PART-IV

4. Answer **any four** questions with maximum 800 words each 8x4=32

a. Describe the process of metagenesis in Obelia

b. Give a brief account of life cycle of Ascaris lumbricoides

c. Describe briefly the various types of parasitic adaptations in Helminthes.

d. Give a brief account of social life of honey bees

e. Describe briefly the water vascular system found in Asteroidea.

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+3 SEM-1(NEP)
ZOO-C-1(P-2)

DECEMBER, 2024

Diversity of Chordates Protochordates to Mammalia

Time = 3 hours Full marks: 100

Answer all questions
Give illustrated diagrams wherever required

PART- I

1. Fill in the blanks. 1x10 = 10

a. In Balanoglossus, the ---------- is the anterior most part of the body.

b. In Herdmania, the mantle encloses a large water –filled cavity called the ----------

c. Is self-fertilization possible in Herdmania?Yes/No----------

d. Herdmania shows ----------type of metamorphosis.

e. The ----------represents liver in Amphioxus

f. The heart of cyclostomes is ---------- chambered.

g. Myxiniformes are commonly known as ----------

h. During flight in birds, the ---------- muscles lowers the wing.

i. Archosauria were the 'ruling repltiles' of ---------- era.

j. The father of Plate tectonics is ----------

PART-II

2. Answer **all** questions with maximum 50 words each 2x9=18

a. What is Branchial sac in Herdmania?

b. What are myotomes in Branchiostoma?

c. What is the function of midgut diverticulum in Amphioxus?

d. What are Pogonophores?

e. What is the most important evolutionary significance of Dipnoi?

f. Describe any 2 general characteristics of Reptiles

g. Describe any 2 affinities of Prototheria

h. What are zoogeographical realms?

i. What is Continental drift theory?

PART-III

3. Answer **any 8 questions** with maximum 250 words each. 5x8=40

a. Describe briefly the larval form of Herdmania.

b. What is Dipleurula concept?

c. Describe briefly any five general characteristics of Agnatha

d. Differentiate between Chondrichthyes and Osteichthyes

e. Distinguish between poisonous and non-poisonous snakes in India

f. What is the chemical nature of snake venom?

g. What are stem reptiles?

h. What is homing instinct?

i. What is Plate tectonics?

j. What is adaptive radiation?

PART-IV

Answer **any 4** questions with 800 words maximum each 8x4=32

4. Describe the concept of retrogressive metamorphosis in Herdmania

5. Describe the theories on origin of chordates

6. Describe the accessory respiratory organs in fishes

7. Give a brief account of parental care in Amphibia

8. Give a brief account on migration in birds.

+3 SEM-1(NEP)
ZOO-C-2(P-1)

DECEMBER, 2024
Invertebrates: Protista to Echinodermata

Time -3 hours **Full marks-100**

Figures in the right-hand side of margin indicates marks
Give illustrated diagrams wherever required

PART- I

1. Answer **all** with one word answer or fill in the blanks: **[1x10 =10]**

a. The ---------- type of canal system is found in Sycon

b. What is the infective stage of malaria parasite?

c. Medusoid stage is altogether absent in ----------class of Phylum Cnidaria

d. What is the secondary host of Fasciola hepatica?

e. The scientific name of filarial worm is ----------

f. The scientific name of filarial worm is----------

g. Drones of honey bees are ----------males

h. Molluscs have gills in their ----------

i. The stone canal of Asteroidea is a ---------- shaped structure

j. Brachiolaria larva has ---------- number of additional arms than Bipinnaria larva

PART – II

2. Answer **all** questions within maximum 50 words each: **[2x9=18]**

a. What is Signet ring stage? Where it is formed?

b. What are the different polymorphic forms found in coelenterates?

c. How does the sheep get infected by Fasciola?

d. What is Pseudocoelom?

e. What is Elephantiasis?

f. What are digenetic parasites? Give Examples.

g. What is the significance of metamerism?

h. Mention any two general characteristics of Phylum Mollusca.

i. What are the larval forms found in the Phylum Echinodermata?

PART -III

3. Answer **any eight** questions within 250 words each. **[5x8=40]**

a. Briefly describe the asexual cycle of Plasmodium vivax.

b. What is leuconoid type of canal system?

c. Describe briefly what are nematocytes?

d. What are the general characteristics of Phylum Annelida?

e. Explain the parasitic adaptations in Helminthes.

f. Describe the concept of vision in Arthropoda

g. Explain the concept of torsion in gastropoda

h. Describe the respiration process in Mollusca

i. Describe very briefly the evolutionary significance of trochophore larva

j. Describe the structure of Bipinnaria larva of Asteroidea.

PART-IV

Answer **any four** questions with maximum 800 words each **[8x4=32]**

4. Describe the process of metagenesis in Obelia

5. Give a brief account of life cycle of Ascaris lumbricoides

6. Give a brief account of evolution of coelom and its types with illustrated diagrams.

7. Describe briefly the general characteristics and evolutionary significance of Onychophora.

8. Describe briefly the water vascular system found in Asteroidea of Echinodermata

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+3 SEM-1(NEP)
ZOO-MDC-1

DECEMBER, 2024

Vector borne diseases and epidemiology

Time - 3 hours full marks-100

Figures in the right-hand side of margin indicates marks
Give illustrated diagrams wherever required

PART- I

1. Fill in the blanks. 1x10 =10
   a. Larvae of fly are commonly called----------
   b. The causative nematode for filariasis is----------
   c. Chikungunya is caused by ----------virus
   d. The ----------disease is caused by sandfly
   e. Phlebotomus fever is caused by----------
   f. The biomedical concept views health as absence of----------
   g. The five main categories of infectious agents are Viruses,Bacteria,fungi,protozoa and---------
   h. Bradford hill criteria are a group of--------principles
   i. The ability of a microorganism to cause damage to its host is known as ----------
   j. The ---------- model helps to clarify the multifactorial and complex interactive nature in disease causation

PART –II

2. Answer **all** questions within 50 words each. 2x9=18
   a. Write two important characteristics features of insects
   b. What are the different types of biological transmission of disease
   c. Define vectorial capacity
   d. What is host specificity?
   e. How can we control houseflies?
   f. Define Epidemiology.
   g. What is Framingham heart study?
   h. What is latency period?
   i. What is epidemiological triad?

PART – III

3. Answer **any 8** questions within 500 words each. 5x8=40

a. Explain briefly the Host-vector relationship.

b. Differentiate between mechanical and biological vector

c. What is Myiasis?

d. What is British doctor's study?

e. Give the difference between communicable and non-communicable diseases.

f. What is Web of causation?

g. What is Infectivity?

h. What is a Pandemic?

i. What is an Epidemic?

j. Describe briefly Rothman's Causal pies.

PART – IV

Answer **any 4** questions with maximum 800 words each 8x4=32

4. Describe briefly the mouth parts of insects with reference to their feeding habits
5. Write about any one sand fly borne disease, their symptoms and control measures
6. Describe briefly about the concept of health and disease.
7. Give an account of mode and route of transmission of diseases.
8. Describe briefly the theory and principles of Bradford Hill criteria.
