

M.Sc. (Zoology) Semester - 3 (CBCS) Examination**Oct/Nov-2021 (NEW COURSE)****Structure And Functions In Invertebrates And Vertebrates, Phylogeny (Core (New))****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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SECTION-1

- Que.1 Answer the Following.** (7)
(A) Describe larval forms of free-living invertebrates. (7)
(B) Write classification, organization and general characters of Mammals.
- OR**
- Que.1** Provide classification chart and discuss with examples the organization and general characteristics of phylum Arthropoda. (14)
- Que.2 Answer the Following.** (7)
(A) Explain Locomotory organs and mode of locomotion in Invertebrates. (7)
(B) Explain excretion in Invertebrates.
- OR**
- Que.2** Make a detailed note on: Reproduction in Invertebrates. (14)
- Que.3 Answer any seven out of eight.** (7)
(1) Explain leech as surgical agent.
(2) Describe molting.
(3) Draw labial palp and maxilla with label.
(4) Write functions of crop.
(5) Why larval forms are important?
(6) Draw classification chart of protozoa.
(7) Draw Malpighian tubules and write about its functions.
(8) Describe Shannon-Weinner index

SECTION-2

- Que.4 Answer the Following.** (7)
(A) Write in detail: Concept of evolutionary biology. (7)
(B) Describe geological time scale.
- OR**
- Que.4** Explain Zoogeographical realms in detail. (14)
- Que.5 Answer the Following.** (7)
(A) Describe beekeeping. (7)
(B) Write about cultural control.
- OR**
- Que.5** Explain biological control in detail with examples. Why it fails in some cases? (14)
- Que.6 Answer any seven out of eight.** (7)
(1) Describe Neo Darwinism.
(2) What was the base of Wallace's theory of evolution?
(3) What challenges did tetrapods face with terrestrial life?
(4) Write characteristics of land vertebrates.
(5) Explain integrated pest management.
(6) Why chemical control is the only solution in some cases?
(7) What is the role of parasitoids?
(8) Which type of damage is caused by silverfish?
