

M.Sc. (Zoology) Semester - 3 (CBCS) Examination**Oct/Nov. -2019 – [NEW COURSE]****Structure And Functions In Invertebrates And Vertebrates, Phylogeny (Core)****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. (14)**

- (A) Write short note on larval forms with diagram.
(B) Write detail classification of phylum Mollusca with examples.

Que. 2 Answer the Following. (14)

Make detailed note on Excretion in invertebrates.

OR

Reproduction in invertebrates.

Que. 3 Answer any seven out of eight. (07)

- (1) Write the name of locomotory and excretory organs of earthworm.
- (2) What are swim bladders?
- (3) Draw piercing and sucking mouth parts and label it.
- (4) Write the scientific name of the organism which cause dengue.
- (5) Write any three significant differences in between invertebrates and vertebrates.
- (6) Draw only figure for locomotion in hydra.
- (7) Explain Shannon-Weinner index in short.
- (8) What is the importance of larval form?

SECTION-2**Que. 4 Answer the Following. (14)**

Evolution of tetrapod and land vertebrates

OR

Describe any three Zoogeographical realms with list of flora and fauna.

Que. 5 Answer the Following. (14)

Write short note on: Environmental and biological control.

OR

Write short note on: Apiculture.

Que. 6 Answer any seven out of eight. (07)

- (1) Write advantages of Chemical control for insect pest management.
- (2) Write disadvantages of Chemical control for insect pest management.
- (3) Explain economic importance of lac culture.
- (4) What is the importance of studying evolutionary biology?
- (5) *Rhacophorus malabaricus* and *Ardeotis nigriceps* are found in which Zoogeographical realms?
- (6) How will you detect presence of agricultural pests in your farm?
- (7) Write the species name used in sericulture.
- (8) Write about useful insects.
