

2 0 2 2

(February)

ZOOLOGY

(Elective/Honours)

(**Systematics, Animal Diversity and Evolution**)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** and *any four* from the rest

1. Write in brief on any *three* of the following :

4×3=12

(a) Binomial nomenclature

(b) Life cycle of *Entamoeba histolytica*

(c) Malpighian tubules

(d) Salient features of *Balanoglossus*

(e) Four postulates of Lamarckism

2. Write down the general characteristics of phylum Chordata. Classify phylum Chordata up to classes with examples.

3+8=11

3. Describe the life cycle of *Ascaris lumbricoides*. Add a note on the mode of infection and pathogenicity of *Ascaris*.

7+2+2=11

4. With the help of suitable diagram, describe the digestive system of cockroach.

3+8=11

5. Describe the respiratory system in *Labeo*. Provide a well labelled diagram of the same.

8+3=11

6. Describe the different anatomical and embryological evidences of evolution.

5½+5½=11

7. (a) Describe the canal system in *Sycon* with diagrams.

5+2=7

(b) Briefly describe the morphology of *Petromyzon*.

4

8. Write short notes on/Answer any *two* of the following :

5½×2=11

(a) Pathogenicity of *Plasmodium vivax*

(b) Briefly summarise Oparin-Haldane theory of origin of life.

(c) Morphology of leach

(d) Urinogenital system in male rabbit

★ ★ ★