

1/EH—63 (i) (Syllabus—2015)

2 0 1 7

(October)

ZOOLOGY

(Elective/Honours)

FIRST PAPER

(**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) Taxonomic hierarchy
- (b) Pathogenicity of *Entamoeba histolytica*
- (c) Digestive system of *Pila*
- (d) Respiratory system of *Petromyzon*
- (e) Lamarckism

(Turn Over)

2. (a) Write down the characteristics of kingdom Animalia. Highlight the diagnostic features of phylum Porifera. $4+3=7$
- (b) Classify phylum Annelida up to classes. 4
3. Give an account of the life cycle of *Ascaris lumbricoides* and its pathogenicity. $7+4=11$
4. Describe the canal system in *Sycon* with suitable diagrams. 11
5. Explain with the help of suitable diagrams the water vascular system in *Asterias*. 11
6. Describe the circulatory system of rabbit with suitable diagrams. 11
7. Explain Charles Darwin's key observations and the deductions that lead to the theory of natural selection. $7+4=11$
8. Write short notes on any two of the following: $5\frac{1}{2}\times 2=11$
- (a) Binomial nomenclature
- (b) Geological timescale
- (c) Conjugation in *Paramecium*
