

1/EH-63 (i) (Syllabus-2015)

2018

( 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. Briefly describe any three of the following :

4×3=12

- (a) Binomial nomenclature
- (b) Structure of *Obelia*
- (c) Respiratory system of *Pila*
- (d) Anatomical evidences of evolution
- (e) Digestive system of rabbit

2. (a) Define taxonomic hierarchy. 1  
(b) Write three main characteristics and give two examples each for phylum Arthropoda, Mollusca and classes Amphibia, Reptilia and Mammalia.  $2 \times 5 = 10$
3. Give an account of conjugation in *Paramecium* and discuss its significance.  $8 + 3 = 11$
4. Describe the urinogenital system of leech with the help of a diagram.  $8 + 3 = 11$
5. Describe the organs and mechanism of respiration in fish *Labeo*. Draw a labelled diagram to illustrate your answer.  $2 + 6 + 3 = 11$
6. (a) Discuss the theory of natural selection. 7  
(b) Write a note on the embryological evidences of evolution. 4
7. What do you understand by the term 'intermediate host'? Describe the life cycle of *Plasmodium vivax* with special reference to intermediate host.  $2 + 9 = 11$
8. Write short notes on any two of the following :  $5 \frac{1}{2} \times 2 = 11$   
(a) Salient features of *Amphioxus*  
(b) Tracheal respiration in cockroach  
(c) Six-kingdom classification

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