

2011

T. D. C II

ZOOLOGY

(Major)

Paper : 2.1

Time : 3 hours

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

Candidates **eligible** for Internal Assessment shall
answer from PART—I only (Marks : 65)

Candidates **not eligible** for Internal Assessment shall
answer both from PART—I and PART—II (Marks : 75)

PART—I

(Marks : 65)

Group—A

(Marks : 35)

Answer Question No. **5** and *any two* from the rest

1. What do you understand by neo-Darwinism?
Explain how neo-Darwinism could elucidate
the Darwinism in a better way. 3+12=15

2. Write a note on embryological and biochemical evolution. $7\frac{1}{2}+7\frac{1}{2}=15$
3. What is meant by speciation? Discuss the differences between genetical and geographical speciation citing examples. $3+12=15$
4. Describe the evolutionary history of modern horse with different palaeontological records. 15
5. Answer any *one* question from the following : 5
- (a) "Archaeopteryx is the connecting link between reptiles and birds." Justify the statement.
- (b) Explain that mimicry is a protective device of the animal.
- (c) Mention the criticism faced by the propounder of the Natural Selection Theory.

Group—B

(Marks : 30)

Answer *any two* questions

6. Enumerate the principal sources of water pollution. Discuss the effects of water pollution and suggest some measures to control it. $5+5+5=15$

7. Write an essay on the historical background, different ideas and concepts of wildlife habitat and species management in India. 15
8. Make a comparative account of integumentary derivatives of birds and mammals. 15
9. What are the different phases of biogeochemical cycle? Discuss the phosphorus cycle and its impact on animal world. 3+8+4=15

PART—II

(Marks : 10)

(In lieu of Internal Assessment)

10. Answer any two questions from the following : 5×2=10
- (a) "Energy flow in an ecosystem follows laws of thermodynamics."
Explain the above statement.
- (b) Explain the relationship between conservation and management of wildlife.
- (c) "Mesozoic era is called as the golden age of reptiles." Justify.
- (d) Why is mammalian heart more efficient than the heart of amphibia?