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Total No. of Printed Pages—4

ABP/CCM-71/XIV

2015

ZOOLOGY

FIRST PAPER

Full Marks : 200

Time : 3 Hours

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

GROUP-A

Marks : 100

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

1. Answer the following questions in brief :
(any five) 8×5=40
 - (a) Describe the canal system of Sycon.
Explain the mechanism and importance
of the circulation of water through this
system. 4+4=8
 - (b) Explain alternation of generations and
metagenesis with reference to the life
cycle of obelia. 3+5=8

Contd.

- (c) Describe the water vascular system of star fish and comment on its significance. $6+2=8$
- (d) What is the characteristic of a typical biramous appendage? Describe the cephalic and thoracic appendages of prawn. $2+6=8$
- (e) Give an account of general organisation of cyclostomata. 8
- (f) Give an account of the internal ear of *Scoliodon* with a neat labelled diagram. $5+3=8$
- (g) Explain the mechanism of hearing and equilibrium in vertebrates. $4+4=8$
- (h) Define neoteny. Discuss the affect of environmental factors on neoteny in Amphibia. $2+6=8$
2. What is venous heart? Describe briefly the afferent and efferent system of scoliodon and course of blood circulation through the heart. $2+12+6=20$
3. Define Portal system. Describe the types of Portal system in Toad with their functional significance. $2+18=20$

4. How can you distinguish between a poisonous snake from a non-poisonous snake? Discuss the poison apparatus and biting mechanism of a poisonous snake with appropriate diagrams. $8+12=20$
5. "Migration is a natural phenomenon in some groups of birds". Justify this statement with examples. What are diurnal and nocturnal migrations? $12+8=20$
6. Describe the structure of teeth in mammal. Write a note on dentition in mammals. $8+12=20$

GROUP-B

Marks : 100

(Answer **any five** questions from the following)

7. What are the various abiotic factors of the environment? Describe the role of temperature as an important ecological factor. $5+15=20$
8. Write the names of National Parks and Wildlife Sanctuaries in Assam with their geographical locations. Mention their important fauna. $12+8=20$
9. Discuss the succession of kidneys in vertebrates. State the significance of this succession. $15+5=20$

10. Write notes on Mean, Standard deviation, Standard error and Correlation.

5+5+10=20

11. Give an account of the morphology and life history of Muga silk worm. Write about the economical importance of muga culture.

14+6=20

12. What is composite fish culture? What are the possible combinations of fishes in such culture? Explain the technique of induced breeding in Aquaculture.

5+5+10=20