

**2017**  
**ZOOLOGY**  
**[HONOURS]**  
**Paper : II**

Full Marks : 50

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **five** questions : 2×5=10
- a) What is tunic? Give the chemical composition of it.
  - b) Write down the differences between chondrichthyes and osteichthyes gill.
  - c) What is opisthonephric kidney?
  - d) What is Meibomian gland?
  - e) How skin helps in mate selection?
  - f) In which form Wolffian duct is present in amniotes?
  - g) What is carotid body? What is its function?
  - h) Write two Reptilian features of Monotremata.

2. Answer any **two** questions : 5×2=10
- a) Give definition with example of the following type of dentition.  
 (i) Secodont, (ii) Brachydont (iii) Lophodont  
 (iv) Selenodont and (v) Hypsodont dentition.
  - b) Write short note on Endostyle.
  - c) How Lungfish can manage its cardiovascular adjustment with the environmental demands?
3. Answer any **three** questions : 10×3=30
- a) Mention four characters of class Mammalia. Classify Mammalia upto subclasses with reasons. Mention two examples (furnish scientific names) from each subclass.  
2+6+2=10
  - b) Discuss the role of foramen of Panizza in circulation during air breathing and diving condition in crocodile. What are the progressive and retrogressive changes occur in Tadpole to transform into adult toad?  
5+(2½+2½)=10
  - c) Mention the Bernoulli's principle. Briefly discuss the aerodynamics of bird flight. What is flapping and hovering during bird flight?

[Turn over]

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Mention two differences between proteroglyphous and opisthoglyphous dentition in make.  $1+5+2+2=10$ .

- d) State hormonal regulation in Amphibian metamorphosis with suitable diagram. How retrogressive metamorphosis occurs in urochordate representative?  $5 \times 2 = 10$
- e) What do you mean by Echolocation? Discuss the ability of echolocation of cetaceans by describing sound producing and echoreceiving organs.  $2+4+4=10$
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