

Bangabasi College

B. Sc. Part II Mid-term Examination, 2016

ZOOLOGY HONOURS

Candidates are required to use Separate Answer Scripts for Each Group

Full Marks: 50

Time: 4 Hours

Answer *Question Number 1 (Compulsory)* and *four* from the following questions

1. Answer *any five* of the following:

2 × 5 = 10

- What do you mean by Pseudobranch?
- Write down the justification of the name "Cephalochordata"
- Distinguish between horn and antlers.
- What is Zugunruhe?
- Mention the characteristics of the cell present in a normal thyroid follicle?
- What is Exophthalmic goiter and Grave's disease.
- Distinguish between Holocrine and Merocrine secretion.
- Distinguish between Involution and Invagination.
- Differentiate between Spiral cleavage and Radial cleavage.
- State the significance of Nieuwkodp centre.

2. Place the following animals (*any four*) into their respective class, subclass or order with reasons mentioning at least two characters for each taxon (For Amphibia and Reptilia upto Order and upto Subclass for the rest)

2.5X4=10

(a) *Lates* sp., (b) *Amphioxus*, (c) *Hyla* sp., (d) Owl, (e) Elephant, (f) Crocodile, (g) Dolphin.

3.(a) What do you mean by retrogressive metamorphosis ?

(b) Describe the importance of Ascidian tadpole in retrogressive metamorphosis.

(c) Discuss about the excretory or circularoty system of *Amphioxus*.

2+4+4 = 10

4. (a) State the principle of ELISA. Explain competitive ELISA. What is its application?

(b) Name two enzymes and substrates used in ELISA.

(c) State the advantage and disadvantage of RIA and ELISA.

(2+2+1+2+2+1) 10

5. (a) State the process of formation of allantois.

(b) Distinguish between Spermiogenesis and Growth phase of oogenesis.

(c) Mention the significance of fate map.

5+3+2 = 10

6. (a) Describe the role of JH and Ecdyson in insect metamorphosis.

(b) Elucidate the mechanism of action of a hormone where IP₃ and DAG are the second messenger.

5+5= 10