



**WEST BENGAL STATE UNIVERSITY**

B.Sc. Honours 2nd Semester Examination, 2021

**ZOOACOR03T-ZOOLOGY (CC3)**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

1. Answer any **eight** questions from the following: 2×8 = 16
- (a) Distinguish between holometabolous and hemimetabolous.
  - (b) Name two hormones that control metamorphosis in insects.
  - (c) What is nuptial flight?
  - (d) What is parapodia? Where do you find it?
  - (e) Differentiate between true metamerism and pseudometamerism.
  - (f) Mention functions of Tube feet.
  - (g) What is monopectinate gill? Give example.
  - (h) What is Tiedemann's body? Mention functions of it.
  - (i) Differentiate between torsion and detorsion in gastropods.
  - (j) In which animal 'Aristotle's Lantern' is found? What is its function?
  - (k) Mention two functions of nephridia.
  - (l) What do you mean by 'metamere'? Which two body parts are never be metameric?
  - (m) Differentiate between schizocoely and enterocoely.
  - (n) What is 'Organ of Bojanus'?
  - (o) Define ametabolous metamorphosis in insects.
2. Answer any **three** questions from the following: 3×3 = 9
- (a) In which phylum the following structures are found? Write one functional role from these following structures.
    - (i) Radula                      (ii) Malpighian tubules                      (iii) Tiedman's body
  - (b) State briefly about the endocrine control of the metamorphosis in insects with suitable illustrations.
  - (c) Write short note on any **one**:
    - (i) Bee dance
    - (ii) Hemimetabolous metamorphosis.

- (d) State briefly the significance of torsion in Gastropoda.
- (e) Briefly describe the various castes found in social life of bees.

3. Answer any **three** questions from the following: 5×3 = 15
- (a) Draw and describe components of a typical water vascular system in *Asterias* sp. 5
  - (b) Name the phylum and class of the following animals: 1×5=5
    - (i) Sea-Mouse      (ii) Sea lily      (iii) Barnacle
    - (iv) Silverfish      (v) Sea hare
  - (c) Describe with a proper diagram the structure of Auricularia larva. 3+2
  - (d) Write short notes on any **two** of the following:  $2\frac{1}{2} \times 2 = 5$ 
    - (i) Termitarium      (ii) Metamerism in Annelida      (iii) Detorsion in gastropods
  - (e) What are the respiratory organs of mollusca? Discuss the mechanism of aquatic respiration of molluscan. 2+3

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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