

**F.Y.B.SC. SEM – I (2014 Course) : WINTER - 2018**  
**SUBJECT: ZOOLOGY: ANIMAL SYSTEMATICS & FUNCTIONAL ANATOMY OF**  
**NON- CHORADATES-I (Z-11)**

Day: Tuesday  
Date: 23/10/2018

**W-2018-0779**

Time: 12.00 NOON TO 02.00 PM  
Max Marks: 40

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**N.B:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the **RIGHT** indicate **FULL** marks.
  - 3) Draw neat labeled diagram **WHEREVER** necessary.
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- Q.1** Attempt any **TWO** of the following: **(10)**
- a) Describe external morphology of *Paramecium*.
  - b) Describe cyclosis and digestion in *Paramecium*.
  - c) Write importance of classification and add a note on ‘Binomial nomenclature’.
- Q.2** Attempt any **TWO** of the following: **(10)**
- a) Describe female reproductive system of Cockroach.
  - b) Describe pre- clitellar circulatory system in Earthworm.
  - c) Describe external morphology of Earthworm.
- Q.3** Attempt any **TWO** of the following: **(10)**
- a) Sketch and label septal nephridium of Earthworm.
  - b) With suitable diagram describe digestive system of Cockroach.
  - c) Describe systematic position and external morphology of Cockroach.
- Q.4** Attempt any **FIVE** of the following: **(10)**
- a) Write systematic position of Earthworm.
  - b) Write significance of conjugation in *Paramecium*.
  - c) Write five kingdoms with one example each.
  - d) Write habit and habitat of *Pheretima posthuma*.
  - e) Sketch and label salivary gland of Cockroach.
  - f) Give structure of malpighian tubule of Cockroach.
  - g) Write habit and habitat of Cockroach.

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