



Department of Biology

BIO2135

Animal Form and Function

University of Ottawa

Professor : Dr. Adam Oliver Brown

Midterm PRACTICE

Exam #2

Tuesday March 10, 2019

Worth 10 or 15% of your final mark

Instructions :

1. This is a closed book exam – no notes, books or electronic devices are permitted.
2. Write your name and student number at the top of every page because the exam booklets will have the pages separated during correction.
3. Make sure that the exam booklet is complete – there are 6 pages in total, including the cover pages.
4. Write your answers directly in this exam booklet without exceeding the space provided.
5. Read the questions carefully and answer using complete sentences only, no point form allowed.
N.B. Do not use drawings, tables or diagrams – they do not replace written explanations and will not be marked.
6. Think hard, reflect well and write coherently in the time allotted, you have 80 minutes.
7. Good Luck!

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Definitions	/10 points
Fill in the blanks	/20 points
Short Answer	/20 points
Total	/50 points

Name: _____ Student Number: _____

Part 1: Definitions (2 points each) – Define and/or explain the meaning and implications of the following terms as they relate to the content of this course.

1- Scolex :

2- Statoblast :

3- Metamerism :

4- Renette cells :

5- Chelicera :

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Part 2 : Fill in the Blanks (1 point each) – Write the name or word that corresponds most appropriately to the following zoological descriptions:

- 1- The name of the location in the reproductive system of monoecious organisms where sperm is temporarily stored after copulation. _____
- 2- The name of the structure that opens and closes the mouth of a Bryozoa.

- 3- The name of the tissue layer that secretes the shell in Mollusca.

- 4- The name of the 2nd larval stage of Mollusca that is only found in Gastropoda and Bivalvia. _____
- 5- The name of the appendages on the side of a free-swimming marine Annelida (Errantia). _____
- 6- The organ in the digestive tract of an Oligochaeta that is responsible for masticating and grinding food particles. _____
- 7- The name of the specialized glands that have the role of removing minerals from the diet of Oligochaeta worms. _____
- 8- The name of the protein with elastic properties that is found in the external cuticle of Nematoda. _____
- 9- The only kind of locomotory muscles found in Nematoda.

- 10- The name of the Arthropoda Sub-Phylum containing the insects.

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- 11- The name of the carbohydrate polymer that is found in the exoskeleton of Arthropoda. _____
- 12- The name given to the Arthropoda epidermis once it has secreted the cuticle to its outside. _____
- 13- The name of the excretory organs in the prosoma of spiders.

- 14- The name of the main kind of nitrogenous waste product that is excreted by Insecta and Chelicerata. _____
- 15- The name of the anterior tagma of Crustacea. _____
- 16- The name of the external/lateral portion of a biramous appendage.

- 17- The name of the protective structure that is found in the dorsal region of the head of millipedes. _____
- 18- The name of the sensory structures on the labium of Insecta.

- 19- The name of the female organ that is responsible for laying eggs in Insecta.

- 20- The name of the membrane that vibrates in Insecta, either to send or receive sounds. _____

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Part 3 : Short Answer (5 points each) –

Describe and/or explain the following concepts in the space provided.

1- Describe the process of sexual reproduction in Oligochaeta (Annelida).

2- Describe the medicinal usage of leeches (Hirudinea).

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3- Describe and explain the stages of the replacement of the Arthropoda exoskeleton.

4- Compare and contrast the hemimetabolous vs. holometabolous metamorphosis in Insecta.