



FINAL TERM EXAM.
Jan 2025



2nd Zoology & Chemistry Students
Introduction to Invertebrates 221Z

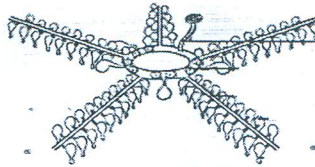
برنامج الحيوان و الكيمياء (المستوى الثاني)
مقدمة في علم اللافقاريات

| | | | |
|---------------------|----------|---------------|-----------------|
| Department: Zoology | Mark: 90 | Time: 2 Hours | Date: 23/1/2025 |
|---------------------|----------|---------------|-----------------|

Answer the Following Questions: (Exam in Two Pages)

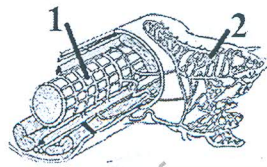
Question One: Choose the correct answer: (32.5 Marks/2.5 each)

1- The provided image illustrates
.....and its function is
.....



- a) a water vascular system & distribution of nutrients b) a water vascular system & sensory reception and locomotion c) Both a & b
- 2- Extinct invertebrates belong to phylumand subphylum
a) Arthropoda & Trilobita b) Arthropoda & Crustacea c) None of them

3- The numbered parts of this image
are.....and



- a) Dorsal and parapodial blood vessels b) Intestinal and parapodial blood vessels c) Intestinal and parapodial circulation

4- Which of the following is NOT a characteristic of the phylum Echinodermata?

- a) They have radial symmetry in adults. b) They have an internal skeleton. c) They are protostomes.

5- Most are active predators, segmented and have bristles setae

- a) Hirudoinea b) Oligochaeta c) Polychaeta

6- Horseshoe crabs belong to class.....and subphylum.....

- a) Xiphosura & Crustacea b) Xiphosura & Chelicerata c) None of them

7- The appendage responsible of shredding and straining the food of crayfish is and its position of body segment is

- a) 2nd Maxilliped & 8 b) 1st Maxilliped & 7 c) 1st Maxilla & 5

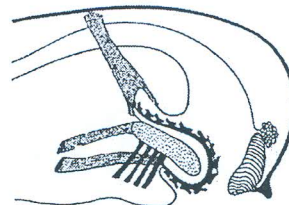
8- They are microscopic arachnids and feed on skin debris and some live in hair follicles

- a) Mites b) Ticks c) Both a & b

9- Squids and Octopuses belong to Class

- a) Gastropoda b) Scaphopoda c) None of them

10- The function of shown image is.....



- a) Digest the food. b) Scrape algae. c) Absorb the nutrients.

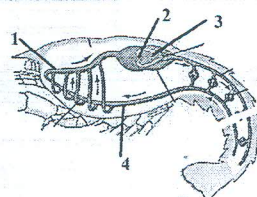
11- Which type of spider silk glands that responsible of spiral parts of sticky-web?

- a) Flagelliform glands b) Aggregate glands c) Aciniform glands

- 12- All of the following are echinoderms EXCEPT.....**
- a) sea cucumbers b) nautilus c) sea lilies
- 13-Holothuroides invertebrates belong to Phylum**
- a) Arthropoda b) Mollusca c) None of them

Question Two: Write True (✓) or False (X) in the following sentences: (42.5 Marks/2.5 each)

- 1- Chitons have separate sexes, fertilization is external and have trochophore larvae. (.....)
- 2- The role of Tubuliform glands is wrapping silk and outer wall. (.....)
- 3- Most molluscs are of marine and terrestrial habitats with 110.000 species. (.....)
- 4- The shell of Chitons provides protection, defense and assists in locomotion. (.....)



Question Three: (15 Marks)

- Compare between the circulatory system of *Hirudo* and *Chiton* mentioning type of circulation of them.

Best of Luck انتهت الاسئلة

Examiner: Ass.Prof./ Shereen Ahmed Fahmy

Head of Department: Prof. Dr./ Ayman Hyder