

- 17- Siphuncle is important in (*Nautilus* - *Laganum* - *Cypris*).
- 18- (*Cypris* - *Chiton* - *Anodonta*) possesses crystalline style.
- 19- Detorsion occurs in (*Pagurus* - *Artemia* - no one).
- 20- (*Squilla* - *Holothuria* - *Ophiocoma*) moves efficiently and quickly.
- 21- *Holothuria* has (exoskeleton - endoskeleton - mantle).
- 22- (Nauplius - Trochophore - Cyprid) larva possesses a simple eye & 3 pairs of appendages.
- 23- Antennae are absent from (Chelicerata - Crustacea - Myriapoda).
- 24- (Ommatidia - Pearls - Tagmata) are optic units in Malacostraca.
- 25- Basic mollusk's body is composed of (three - five - seven) regions.
- 26- Mysis larva is found in (*Ophiocoma* - *Anodonta* - *Penaeus*).

Q2. Answer six only of the following: (24 marks)

- 1- Compare only by drawing & labeling the nervous system in both *Anodonta* & *Scolopendra*.
- 2- Demonstrate structure & functions of water vascular system in Echinodermata.
- 3- Differentiate between Diplopoda & Chilopoda with examples.
- 4- Classify Class Gastropoda giving an example for each.
- 5- Only draw with labeling the blood circulation in both *Buthus* & *Sepia*.
- 6- Distinguish between normal & brittle stars, giving examples (scientific name).
- 7- List the main characteristics of Echinodermata.
- 8- Illustrate structure & function of mantle in Mollusca.

----- End -----

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بالتوفيق و السداد



University: Asyut
Faculty: Science
Department: Zoology

Invertebrate II
Code: 222 Z
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Total degree : 50
Final exam.
Time: 2 hrs.



Answer the following questions: Note: The questions are in 2 pages

Q1. Choose between brackets: (26 marks)

- 1- Jet propulsion is known in (*Octopus* - *Holothuria* - *Tripneustes*).
- 2- (Mites - Slugs - Pauropods) have capitulum.
- 3- (Book gill - Green gland - Kidney) is the excretory system in *Limulus*.
- 4- *Dentalium* has (exoskeleton - endoskeleton - mantle).
- 5- (Torsion - Coiling - Detorsion) occurs during early developmental stages.
- 6- Parthenogenesis could be noticed in (*Pagurus* - *Artemia* - no one).
- 7- (Radula - Endoskeleton - Capitulum) is characteristic of *Chiton*.
- 8- *Conus* Belongs to (Prosobranchia - Opisthobranchia - Pulmonata).
- 9- Nauplius larva is found in (*Ophiocoma* - *Anodonta* - *Neptunus*).
- 10- (*Pagurus* - *Sepia* & *Strongulus* - *Limulus*) can secrete/s its/their shell/s.
- 11- *Peripatus* belongs to (*Arthropoda* - *Mollusca* - no one).
- 12- Spinnerets are found in (*Buthus* - *Lycosa* - *Dentalium*).
- 13- (*Cypris* - *Chiton* - *Echinometra*) possesses exoskeleton.
- 14- (Scallops - Clams - Oysters) are Soft Bottom Burrowers.
- 15- *Limulus* belongs to (Chelicerata - Crustacea - Chilopoda).
- 16- (Tagmatization - Torsion - Cryobiosis) occurs in tardigrades.

Follow the rest of questions

