



Name :

Time : 3 Hours

Max. Marks : 40

I. Essay questions (**Each** question carries **8** marks). Answer **any 2**.

- 1) Write notes on the thoracic and abdominal appendages of *Penaeus* with the help of labeled diagrams.
- 2) Write notes on the salient features of Phylum Annelida. Add notes on its classification down to classes with suitable examples.
- 3) Briefly describe the economic importance of Phylum Mollusca.
- 4) Write notes on the water vascular system in echinoderms. (2×8=16)
- II. Short Essay (**Each** question carries 4 marks). Answer **any 2**.
- 5) Write notes on the nervous system of cockroach with the help of a neatly labeled diagram.
- 6) Write notes on larval forms of Echinoderm.
- 7) Write a short essay on vermiculture. (2×4=8)
- III. Short answer questions (**Each** question carries 2 marks). Answer **any 6**.
- 8) Write on the sex determination mechanism in *Bonellia*.
- 9) Comment on the damage and control of *Leptocorisa acuta*.
- 10) Write the classes to which the following belong.
a) *Loligo* b) *Ophiothrix*
- 11) Comment on the salient features of Class Insecta.
- 12) What are setae ? What are their functions ?
- 13) How is pearl formed inside the pearl oyster ?
- 14) Enlist the salient features of Phylum Phoronida.
- 15) Write notes on the evolutionary significance of *Limulus*. (6×2=12)
- P.T.O.

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- 16) Which of the following animals is known as 'hermit crab' ?
 - a) *Dentalium*
 - b) *Eupagurus*
 - c) *Turbinella*
 - d) *Scolopendra*
- 17) Respiratory process seen connected to maxillipeds and chelipeds of arthropods
 - a) Matigobbranch
 - b) Propodite
 - c) Gnathobase
 - d) Sternites
- 18) Jaw like structures seen in the aboral surface of echinoderms helping to removing foreign bodies setting on the body surface
 - a) Pedicellariae
 - b) Dermal branchiae
 - c) Madreporite
 - d) Ctenidium
- 19) Larval form of gastropods
 - a) Trochophore
 - b) Veliger
 - c) Muller's larva
 - d) Glochidium
- 20) Balanoglossus is otherwise known as
 - a) Tongue worm
 - b) Tapeworm
 - c) Shipworm
 - d) Sand worm
- 21) Anticoagulant enzyme present in the saliva of leech is
 - a) Heparin
 - b) Plasmin
 - c) Hemopoietin
 - d) Hirudin
- 22) Which of the following cause parasitic castration in crab ?
 - a) *Sacculina*
 - b) *Cymothoa*
 - c) *Sarcoptes*
 - d) *Balanus*
- 23) Mouth-parts of honey bee is
 - a) Siphoning type
 - b) Biting and chewing type
 - c) Sponging type
 - d) Chewing and lapping type

(8×1½)

(8x1/2=4)