

757301**Jan. 2022****M.Sc. (Zoology) IIIrd SEMESTER****Structure and Functions of Non-Chordates (MZO-301)**

Time : 90 Minutes]

[Max. Marks : 25

Instructions :

1. *It is compulsory to answer all the questions (1 mark each) of Part-A in short.*
2. *Answer any three questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART - A

1. (a) What do you understand by schizocoelous coelom? (1)
- (b) Describe gonocoel theory of origin of coelom. (1)
- (c) Define book lungs. (1)
- (d) Define protonephridia. (1)
- (e) What do you understand by ctenidium? (1)
- (f) State the difference between protonephridia and metanephridia. (1)
- (g) What do we mean by pseudo metamerism? (1)
- (h) What do you understand by paurometabolous development? (1)

- (i) Explain chewing-lapping type of mouth parts in insects. (1)
- (j) Comment over crustacean larva megalopa. (1)

PART - B

2. (a) Discuss the organization of coelom in phylum sipunculida. (3)
- (b) Differentiate between protostomous and deuterostomous coelomates. (2)
3. (a) Comment over mechanism of locomotion in case of Earthworm. (2)
- (b) Describe the nervous system of class Insecta. (3)
4. Explain filter feeding mechanism in Mollusca. (5)
5. (a) Elaborate any *two* larva of phylum Echinodermata. (2)
- (b) Explain the working mechanism of excretion and osmoregulation in case of Malpighian tubule. (3)
6. (a) Comment over economic importance of invertebrates. (2)
- (b) Explain the flying mechanism in dragonfly. (3)