

Total Pages – 2

M.Sc. RNLK-/Z-101(Gr.A)/21

**2021**

**Zoology**

**[First Semester]**

**Paper - Z-101 (Gr. A)**

**Non-Chordates**

*Full Marks : 40*

*Time : 2 hours*

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**1. Answer the following : (Any 2) 2×2=4**

- a) What are the threats regarding insect conservation?
- b) Mention four distinctive features for moraminofera.
- c) Mention role of hypothetical Dipliurula larva in the piylogeny of Echinoderms.
- d) State four important anatomical peculiarities of Bryozoans.

*(Turn Over)*

( 2 )

**2. Answer the following : (Any 2) 4×2=8**

- a) Write briefly with proper diagram – the feeding mechanism of nematodes.
- b) Write a note on the evolution of coelome in invertebrates.
- c) What is cyclomorphosis? Explain the mechanism you have studied in respect to Rotifera.
- d) Write conservation strategies of invertebrates.

**3. Answer the following (Any 1) 8×1=8**

- a) Briefly describe the salient features of metazoa. Describe and compare Hadzi's and Steinbock's scheme regarding origin of metazoa.
- b) How are lophophorates? Mention their feeding, reproduction and importance in biology?

Total Pages – 2

M.Sc. RNLK-/101(B)/21

**2021**

**Zoology**

**[First Semester]**

**Paper - 101(B)**

**Chordates**

*Time : 2 hours*

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**4. Answer the followings : (Any 2) 2×2=4**

- a) Mention the types of swim bladder with examples.
- b) Write the function of mullerian and wolffian duct.
- c) Write name of two marine finfish.
- d) Write importance of kidney in osmoregulation.

*(Turn Over)*

( 2 )

**5. Answer the folloings. (Any 2) 4×2=8**

- a) What is endostyle? Write short note on Iodine cycle of protochordates. 2+2
- b) Write scope of marine fishery in India.
- c) Classify knendy according to their developmental stage in evolution.
- d) Write down the morphological adaptation for echolocation in terrestrial mammals. 4

**6. Answer the following. (Any 1) 8×1=8**

- a) Write a note on evalution of primates with special reference to Homo sapiens sapiens. 8
- b) Write short note on
  - (i) Osmoregulation in fresh water fish.
  - (ii) Write fate of endestyle in protocherdates. 4+4