

2022

1st Semester Examination

ZOOLOGY

Paper : ZOOOL 101

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Paper : 101.1

(Non Chordates Biology)

1. Answer any *two* of the following questions : 2×2=4
 - (a) Differentiate between direct and indirect development with examples.
 - (b) Explain how the high pseudocoelomic pressure affects feeding in nematods? 2
 - (c) Briefly highlight the roles of foraminifera in environmental monitoring.
 - (d) Describe the ecological roles of free living nematods. 2

2. Answer any *two* of the following questions : 4×2=8
 - (a) *What are the salient features of colonial theory*

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which was proposed by Haeckel to explain metazoan evolution.

- (b) Draw the relationships among parazoa, mesozoa and metazoa.
- (c) Compare characteristic features of Protostome and Deuterostome Larvae.
- (d) Mention the main causes of invertebrate extinction.

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3. Answer *one* of the following questions : $8 \times 1 = 8$

- (a) Define larvae. What are the different categories of larvae in the aquatic environment based on the resource utilization?
- (b) Short note : (i) Evolution of coelom in metazoa.
(ii) Cyclomorphosis in rotifera.

Paper : 101.2

(Chordates Biology)

4. Answer any *two* questions of the following : $2 \times 2 = 4$

- (a) Write down the chemical name of T_3 & T_4 . 2
- (b) What is iodine cycle? 2
- (c) What are the different morphological features adopted for bat echolocation? 2

- (d) Mention the characteristic features of Urochordate.
Give an example. 1+1

5. Answer any *two* questions of the following : 4×2=8

- (a) Write a short note on Endostyle of cephalochordates. 4
- (b) Briefly describe the evolution of modern human. 4
- (c) Marine fish drink water while freshwater fish don't — Justify the statement.
- (d) Briefly describe the ideal anatomy of a respiratory organ. 4

6. Answer *one* question of the following : 8×1=8

- (a) Discuss the counter-current mechanism of gill respiration of fish. State the importance and function of swim bladder in fishes.
- (b) Give an account of different types of kidney in chordates.
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