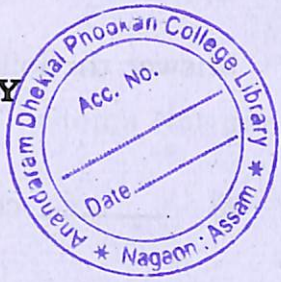
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1 (Sem–4/FYUGP) ZLG 41 MJ

2026



ZOOLOGY

(Major)

Paper : ZIG4400104MJ

(Animal Taxonomy, Systematics and Biostatistics)

Full Marks : 45

Time : 2 hours

The figures in the margin indicate full marks for the questions.

Q. No. **1** *is compulsory in both* **PART–A** *and* **PART–B.**

PART–A

(Animal Taxonomy, Systematics)

1. Answer the following questions as directed : 1×4=4

(i) _____ coined the term taxonomy.
(Fill in the blank)

(ii) A group of interconnected genera is called an order
(Write true ***or*** *false)*

(iii) Name the only taxonomic category that has a real existence.

(iv) The term systematic was used for the first time by Linnaeus in
(Choose the correct option)

(a) 1st edition of Systema Naturae in 1758

(b) 1st edition of Species Plantarum in 1753

(c) 4th edition of Systema Naturae in 1735

(d) 4th edition of Systema Naturae in 1758

2. Write short notes on ***any three*** : 2×3=6

(i) Cryptic Species

(ii) Taxonomic key

(iii) Linnaean Hierarchy

(iv) Cladogram

(v) IUBS

3. Answer the following questions : ***(any two)*** 5×2=10

(i) What is new systematics ? Distinguish between chemotaxonomy and Cytotaxonomy. 1+4=5

(ii) What is species ? Write a brief comparative note on Biological species concept and Morphological species concept. 1+4=5

(iii) What do you mean by derived character ? Distinguish between Homology and Analogy. 1+4=5

(iv) Distinguish between Holotype and Paratype. Add a note on importance of type specimen. 3+2=5

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4. Answer elaborately : ***(any one)*** 10×1=10

(i) Explain the following : 2+8=10

(a) Principle of priority

(b) Systematics plays important role in the field of applied biology.

(ii) What is the full form of ICZN ? Elaborate the principles and functions of ICZN. 1+6=3=10

PART–B

(Biostatistics)

1. Give the formula for calculating Standard deviation for ungrouped data. 1

2. Write very briefly on : ***(any two)*** 2×2=4

(i) Frequency distribution

(ii) Mathematical average and Positional average

(iii) Percentile and Quartile

(iv) Correlation and regression

3. Answer ***any two*** from the following : 5×2=10

(i) Discuss the importance of statistics in biology.

(ii) Following table shows the distribution of blood groups in male and female students of a college.

Blood group	No of Students	
	Male	Female
A	427	317
B	559	412
O	521	367
AB	122	85

Draw a pie-diagram for distribution of blood groups.

(iii) Calculate median from the following data :

x	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
f	15	17	32	13	13	10

(iv) Define sample. Describe the different sampling method used in biostatistics.

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