

# Faculty of Science

## End Semester Examination May 2025

### FS3EG05 Zoology

<b>Programme</b>	:	B. Sc. (Hons.)	<b>Branch/Specialisation</b>	:	FS
<b>Duration</b>	:	3 hours	<b>Maximum Marks</b>	:	60

**Note:** All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary.  
 Notations and symbols have their usual meaning.

#### Section 1 (Answer all question(s))

<b>Q1.</b>	The phylum Coelenterata is now more commonly referred to as-	<b>Marks CO BL</b>		
		1	1	1
<b>Q2.</b>	The characteristic feature of nematodes is-			
	<input type="radio"/> Flat and ribbon-like body			
	<input checked="" type="radio"/> Pseudocoelom and unsegmented round body			
	<input type="radio"/> Radial symmetry			
<b>Q3.</b>	Echinoderms like starfish have which unique feature?			
	<input checked="" type="radio"/> Water vascular system			
	<input type="radio"/> Segmented body			
	<input type="radio"/> Radial symmetry in larval stage			
<b>Q4.</b>	The body of a prawn is divided into-			
	<input type="radio"/> Head and abdomen			
	<input checked="" type="radio"/> Head, thorax, and abdomen			
	<input type="radio"/> Cephalothorax and abdomen			
<b>Q5.</b>	In which subphylum do organisms have a notochord restricted to the tail region in the larval stage?			
	<input type="radio"/> Cephalochordata			
	<input checked="" type="radio"/> Hemichordata			
	<input type="radio"/> Urochordata			
<b>Q6.</b>	Which of the following is a key feature unique to mammals?			
	<input checked="" type="radio"/> External ears (pinnae) and mammary glands			
	<input type="radio"/> Presence of a two-chambered heart			
	<input type="radio"/> Laying shelled eggs			
	<input type="radio"/> Three pairs of limbs			
<b>Q7.</b>	What is the primary habitat of Giardia intestinalis within the human body?			
	<input checked="" type="radio"/> Small intestine			
	<input type="radio"/> Bloodstream			
	<input type="radio"/> Colon			
<b>Q8.</b>	What is a parasite?			
	<input type="radio"/> An organism that lives freely in the environment			
	<input checked="" type="radio"/> An organism that produces its own food			
	<input type="radio"/> A predator that kills and eats its prey			
	<input type="radio"/> An organism that lives on or in another organism and benefits at the host's expense			
<b>Q9.</b>	What is the outer protein shell of a virus called?			
	<input type="radio"/> Envelope			
	<input checked="" type="radio"/> Capsid			
	<input type="radio"/> Cytoplasm			
	<input type="radio"/> Nucleus			

**Q10.** Which of the following microbial interactions harms both organisms?

1 5 1

- Mutualism
- Parasitism
- Commensalism

- Parasitism
- Competition

### Section 2 (Answer all question(s))

Marks CO BL

**Q11.** State two economic importance of phylum Porifera.

2 1 1

Rubric	Marks
Each Importance- 01 Mark	2

**Q12. (a)** Explain the classification of Protozoa up to class level with their characteristic features and suitable examples.

8 1 1

Rubric	Marks
Classification- 06 Marks	8
Example- 02 Marks	

(OR)

**(b)** Describe the life cycle of Plasmodium, highlighting the stages in both human and mosquito hosts.

Rubric	Marks
Explanation of Stages in Human with diagram- 04 Marks	8
Explanation of Stages in Mosquito with diagram - 04 Marks	

### Section 3 (Answer all question(s))

Marks CO BL

**Q13.** State two distinguishing features of phylum Arthropoda.

2 2 1

Rubric	Marks
Each Feature:- 01 Mark	2

**Q14. (a)** Write down the main characteristics features of phylum Echinodermata. Describe the specialized structures in a starfish that assist in movement and explain how they function.

8 2 1

Rubric	Marks
Characteristics features:- 06 Marks	8
Starfish structure- 02 Marks	

(OR)

**(b)** Describe the general characteristics of phylum Annelida. Illustrate your answer with reference to the structure and habitat of Neries.

Rubric	Marks
Characterisctics features:- 06 Marks	8
Neries structure and habitat:- 02 Marks	

### Section 4 (Answer all question(s))

Marks CO BL

**Q15.** Write three characteristic features of Balanoglossus.

3 3 1

Rubric	Marks
Each characteristics: 01 Marks	3

**Q16. (a)** Differentiate between poisonous and non-poisonous snakes with examples.

7 3 1

Rubric	Marks
Difference:- 05 Marks Examples:- 02 Marks	7

(OR)

**(b)** Describe various strategies of parental care observed in amphibians with examples.

Rubric	Marks
General characteristics of amphibians- 02 Marks Various methods of parental care - 04 Marks Examples- 01 Marks	7

### Section 5 (Answer all question(s))

Marks CO BL

3 4 1

**Q17.** Define the term 'host' in parasitology. Describe any two types of hosts with suitable examples.

7 4 2

Rubric	Marks
Definition:- 01 Marks Types and example:- 02 Marks	3

**Q18. (a)** Define parasites. Explain the different types of parasites with suitable examples.

7 4 2

Rubric	Marks
Definition:- 02 Marks Classification and Explanation:- 04 Marks Examples:- 01 Mark	7

(OR)

**(b)** What are the procedures used in parasitological analysis? Illustrate them schematically.

Marks CO BL

5 5 1

**Q19.** Explain the role of microbes in agriculture and biotechnology with suitable examples.

5 5 1

Rubric	Marks
Role- 04 Marks Example- 01 Mark	5

**Q20.** What is a virus? Differentiate between DNA and RNA viruses.

5 5 1

Rubric	Marks
Definition:- 01 Marks Differentiation 4 points:- 04 Marks	5

**Q21.** Define microbial ecology. Explain three roles of microbes in the environment.

5 5 1

Rubric	Marks
Definition- 2 Marks Role- 03 Marks	5