



Faculty of Science

End Semester Examination May 2025

FS3EG05 Zoology

Programme	:	B. Sc. (Hons.)	Branch/Specialisation	:	FS
Duration	:	3 hours	Maximum Marks	:	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))					Marks	CO	BL
Q1.	The phylum Coelenterata is now more commonly referred to as-				1	1	1
	<input type="radio"/> Porifera	<input type="radio"/> Mollusca					
	<input checked="" type="radio"/> Cnidaria	<input type="radio"/> Annelida					
Q2.	The characteristic feature of nematodes is-				1	1	1
	<input type="radio"/> Flat and ribbon-like body	<input checked="" type="radio"/> Pseudocoelom and unsegmented round body					
	<input type="radio"/> Radial symmetry	<input type="radio"/> Segmented coelomic cavity					
Q3.	Echinoderms like starfish have which unique feature?				1	2	1
	<input checked="" type="radio"/> Water vascular system	<input type="radio"/> Segmented body					
	<input type="radio"/> Radial symmetry in larval stage	<input type="radio"/> Jointed limbs					
Q4.	The body of a prawn is divided into-				1	2	1
	<input type="radio"/> Head and abdomen	<input type="radio"/> Head, thorax, and abdomen					
	<input checked="" type="radio"/> Cephalothorax and abdomen	<input type="radio"/> Thorax and tail					
Q5.	In which subphylum do organisms have a notochord restricted to the tail region in the larval stage?				1	3	2
	<input type="radio"/> Cephalochordata	<input type="radio"/> Hemichordata					
	<input checked="" type="radio"/> Urochordata	<input type="radio"/> Vertebrata					
Q6.	Which of the following is a key feature unique to mammals?				1	3	1
	<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					
Q7.	What is the primary habitat of Giardia intestinalis within the human body?				1	4	1
	<input checked="" type="radio"/> Small intestine	<input type="radio"/> Bloodstream					
	<input type="radio"/> Colon	<input type="radio"/> Liver					
Q8.	What is a parasite?				1	4	1
	<input type="radio"/> An organism that lives freely in the environment	<input type="radio"/> An organism that produces its own food					
	<input type="radio"/> A predator that kills and eats its prey	<input checked="" type="radio"/> An organism that lives on or in another organism and benefits at the host's expense					
Q9.	What is the outer protein shell of a virus called?				1	5	1
	<input type="radio"/> Envelope	<input type="radio"/> Cytoplasm					
	<input checked="" type="radio"/> Capsid	<input type="radio"/> Nucleus					

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

1 5 1

- ☐ Mutualism
 ☐ Parasitism
☐ Commensalism
 ☒ 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 Example- 02 Marks	8

(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 Explanation of Stages in Mosquito with diagram - 04 Marks	8

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 Starfish structure- 02 Marks	8

(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 Neries structure and habitat:- 02 Marks	8

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

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

3 4 1

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.

Rubric	Marks
Procedure for analysis and schematically presentation :- 07 Marks	7

Section 6 (Answer any 2 question(s))

Marks CO BL

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
