

**Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET UNIVERSITY)**

M.Sc. (Third Semester – Regular) Examinations, December – 2025

24MLSPC23004 – ETHOLOGY & DEVELOPMENTAL BIOLOGY

(Life Science – Animal Science)



Time: 3 hrs

Maximum: 60 Marks

Answer ALL questions

(The figures in the right hand margin indicate marks)

PART – A

(2 x 5 = 10 Marks)

Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. What is imprinting?	CO1	K1
b. What are pheromones?	CO2	K2
c. Define placenta.	CO3	K1
d. What is infertility?	CO4	K2
e. Define teratogenesis.	CO5	K1

PART – B

(10 x 5 = 50 Marks)

Answer ALL the questions

	Marks	CO #	Blooms Level
2. a. Describe the gene–phene relationship with examples.	5	CO5	K1
b. Describe artificial insemination and its applications.	5	CO4	K2
(OR)			
c. Describe vulva formation in <i>C. elegans</i> .	5	CO3	K3
d. Explain types of placenta with examples.	5	CO3	K3
3.a. Describe epimorphic regeneration in salamander limb.	5	CO2	K3
b. Describe the process of oogenesis with a neat diagram.	5	CO2	K3
(OR)			
c. Write a note on circadian rhythms and the biological clock.	5	CO1	K3
d. Explain the different types of learning in animals with examples.	5	CO1	K4
4.a. Explain different types of teratogens with examples.	5	CO5	K3
b. Discuss infertility causes and treatment options.	5	CO4	K3
(OR)			
c. Elaborate the social organization and communication in insects and primates. Compare them	10	CO1	K6
5.a. Describe the development of foetal membranes and their functions in vertebrates.	10	CO3	K4
(OR)			
b. Discuss differential gene expression and cellular differentiation in animal development.	10	CO2	K6
6. Explain organogenesis of limb and eye lens with molecular regulation.	10	CO4	K6
(OR)			
c. Write a note on circadian rhythms and the biological clock.	5	CO1	K2
d. Describe neurulation with diagrams.	5	CO2	K3

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