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GIET UNIVERSITY, GUNUPUR – 765022
M. Sc. (Third Semester) Examinations, December – 2022
20ASCBOE306 - Ethology and Developmental Biology
(Life Science – Animal Science)

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)

PART – A**(2 x 10 = 20 Marks)**

Q.1. Answer ALL Questions

	CO#	Blooms Level
a. What do you mean by pheromones?	1	2
b. Distinguish between acquired and innate learning?	1	3
c. What is regeneration?	4	3
d. Explain about IVF.	4	4
e. What is the difference between blastula and blastocyst?	1	3
f. What is plueripotency?	3	4
g. What is stem cells and location.	3	1
h. What is biological clock?	4	3
i. Distinguish between estrous and menstrual cycle.	4	4
j. Explain artificial insemination.	4	2

PART – B**(10 x 5 = 50 Marks)**Answer ANY FIVE questions

	Marks	CO#	Blooms Level
2. Describe structure of hen's egg. Add a note on the process of gastrulation in chick.	10	1	3
3.a. Write a note on the reproductive behaviour in fish.	5	4	3
b. Maternal contribution in early embryonic development	5	4	4
4. a. What is the mechanics and significance of gastrulation	5	3	3
b. What are the structural and physiological changes during metamorphosis?	5	3	4
5. What is regeneration? Explain the regeneration of salamander limb.	10	3	3
6. What is orientation? Classify various types of taxis and kinesis.	10	1	3
7. Elaborate about fertilization; significance of fertilization for development and the essence of activation of the egg.	10	3	3
8. a. Discuss about the cleavage patterns in frog.	5	3	3
b. How anterior posterior axis developed in chordates?	5	3	3

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