



# THE AMERICAN COLLEGE, MADURAI

(An Autonomous Institution Affiliated to Madurai Kamaraj University)  
Re-accredited (2<sup>nd</sup> Cycle) by NAAC with Grade "A", CGPA – 3.46 on a 4-point scale

## Backlog Arrear Examination, March 2021

**ZOO 3543/2446**

**Developmental Biology**

**Time : 3 Hours**

**Marks: 75**

**Answer any Five Questions**

**(5X15=75)**

1. Explain the entire process of oogenesis with neat illustrations
2. Describe the process of fertilization with labelled sketches.
3. Draw a neat diagram and describe gastrulation process in mammal.
4. List down the major ecological, anatomical, physiological and biochemical changes in a tadpole during metamorphosis.
5. Explain nucleo-cytoplasmic interaction by citing suitable examples and diagram.
6. What are stem cells? Describe their properties, types and their role in Pharmacology.
7. Describe in detail, the process of in-vitro fertilization and the ethical issues involved in it.