

## 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

PGZ 5522 ANIMAL AND PLANT BIOTECHNOLOGY TIME: 3hrs

Marks: 75

## **Answer any Five Questions**

(5x15 = 75)

- 1. What is embryo rescuing technique? Mention the suitable in vitro procedures needed for culturing chick embryo.
- 2. Explain any three transgenic animals and add note on its merits and demerits.
- 3. Describe the methods of in vitro fertilization and write a comment on Cloning of farm animals.
- 4. What is MS Medium? Give the bench work steps for surface sterilization of explants for callus formation.
- 5. Discuss the methods of isolation, purification, fusion and culturing protoplast.
- 6. Elaborate the significance of Agrobacterium mediated gene transfer in dicot plants.
- 7. High light the principles and applications of transgenic plants using Bt gene.