



# CBCS SCHEME

17BT553

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Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020

## Animal Biotechnology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 Compare the following with reference to their application in Animal cell culture :
- Serum containing and serum – free media. (10 Marks)
  - Vertical and Horizontal LAF. (10 Marks)

OR

- 2 Distinguish between the following with reference to their limitations and advantages :
- Fluorescein diacetate and Trypan blue assays. (15 Marks)
  - Antibiotic – Containing and Antibiotic – free media. (05 Marks)

### Module-2

- 3 Distinguish between :
- Primary and Secondary cell cultures. (05 Marks)
  - Monolayer and Suspension cell cultures. (10 Marks)
  - Batch and Continuous cultures. (05 Marks)

OR

- 4 Distinguish between :
- Finite and Continuous cultures. (10 Marks)
  - Nunc cell factory and Roller bottle cultures. (10 Marks)

### Module-3

- 5 Compare the following :
- Adult and Embryonic stem cells culture. (10 Marks)
  - Rapid and Slow Cryopreservation. (10 Marks)

OR

- 6 How do the following differ from one another? Discuss with reference to relative merits/demerits and applications :
- In – situ and Ex – situ germplasm preservation. (10 Marks)
  - Embryo splitting and Embryo sexing. (10 Marks)

### Module-4

- 7 'Approaches like Marker – Assisted breeding of livestock have significantly improved and Revolutionized veterinary biology'. Do you agree? Justify with reasons. (20 Marks)

OR

- 8 'Nucleic acid based methods have contributed significantly to animal SPP identification and are more full proof when compared to other methods e.g Biochemical morphological etc'. (20 Marks)

### Module-5

- 9 a. What is the difference between Natural cultured and Certificial pearls? (10 Marks)  
b. 'Probiotics can be beneficial for aquaculture'. Do you agree? Substantiate. (10 Marks)

OR

- 10 'Tissue engineering represents a step ahead yet is distinct from cell culture'. Outlining the steps involved and parameters relevant, justify this statement. (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.