

Printed Pages : 2



EBT011

(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 154651**

Roll No.

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**B. Tech.**

(SEM. VI) THEORY EXAMINATION, 2014-15  
**ANIMAL BIOTECHNOLOGY**

Time : 3 Hours]

[Total Marks : 100

**Note :** Attempt all questions. All questions carry equal marks.

- 1 Write short notes on any four parts of the following  
(5×4=20)
  - (a) Preparation and sterilization of culture media
  - (b) Cryopreservation
  - (c) Protooncogenes
  - (d) Trypsinization
  - (e) Microencapsulation
  - (f) Serum
  
- 2 Attempt any two parts of the following (10 × 2 =20)
  - (a) What do mean by cell culture techniques? Describe various types of cell culture media used for cultivating animal cells *in-vitro*.
  - (b) What is stem cell? Explain therapeutic application of stem cells for human health.

- (c) Why cell suspension culture is a preferred choice of cell cultivation? Explain.
- 3 Attempt any two parts of the following : (10×2=20)
- (a) What do you mean by transgenic animals? Explain methods and strategies of transgene delivery in host cell.
- (b) Enlighten the process of stem cell differentiation. Also explain the process of blood cell formation.
- (c) What is shear stress and shear strain? Explain in terms of animal cell cultivation in bioreactor?
- 4 Attempt any two parts of the following : (10×2=20)
- (a) What is perfused monolayer Cultures? Discuss various reactor configurations for developing monolayer cell lines.
- (b) What do you understand by cell cloning and selection? Illustrate the process of Transformation in explaining the process of cell cloning
- (c) How can Animal cell lines be used in estimating the toxicity of environmental pollutant? Also show its relatedness with human. health.
- 5 Attempt any two parts of the following (10×2=20)
- (a) How can Transgene integration efficiency be improved? Discuss strategies for it.
- (b) Discuss the media selection parameters for cell lines development
- (c) What do you understand by Vaccines? Explain how Animal Biotechnology is of great use in producing Vaccines at large scale.