

CS/2110

 **Animal Biotechnology (BHB25)**

5503/AH

Attempt two question from the each Section A and B and the section C is compulsory

Time 3 hrs

MM :74

**Section A**

- |   |  |    |
|---|--|----|
| 1 | What is stem cell? Describe the methods of embryonic stem cell-mediated gene transfer.     | 11 |
| 2 | Describe the various steps of targeted gene transfer                                       | 11 |
| 3 | Discuss the application of biotechnology for the control of animal diseases studied by you | 11 |
| 4 | a Write a detailed note on the transgenic live stock and its advantages                    | 11 |
|   | b Write a note on a) transgenic pig and b) transgenic sheep                                | 11 |

**Section B**

- |   |  |    |
|---|--|----|
| 5 | Write an essay on the stem cell technology and its application                 | 11 |
| 6 | What are the different methods of animal propagation? Discuss in detail        | 11 |
| 7 | Describe in detail about the non-viral methods of gene therapy                 | 11 |
| 8 | Discuss in details about the problems and ethics associated with gene therapy. | 11 |

**Section C**

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|---|---|----|
| 9 | <b>Explain the following (15x2)</b>       | 30 |
|   | i DNA library                             |    |
|   | ii DNA probe                              |    |
|   | iii Microinjections                       |    |
|   | iv Name the animals that have been cloned |    |
|   | v Theileriosis                            |    |
|   | vi Trypanosomiasis                        |    |
|   | vii Peng-Peng Sheep                       |    |
|   | viii Stem cell                            |    |
|   | ix FluroPig                               |    |
|   | x Cloning                                 |    |
|   | xi Gene therapy                           |    |
|   | xii Dicer enzyme                          |    |
|   | xiii Gene silencing                       |    |
|   | xiv Magic bullets                         |    |
|   | xv Somatic gene therapy                   |    |