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N

Roll No. ....9353037....

(20517)

B.Sc. (Bio-Tech.)-III Yr.

NS-3474

B.Sc. Bio-Technology Examination, May 2017

Animal Bio-Technology

(B-302)

(New)

Time : Three Hours] *[Maximum Marks : 75*

Note : Attempt any **five** questions.

1/ Describe the history and scope of cell and tissue culture in animals. Discuss the advantages and disadvantages of animal tissue culture. 15

P.T.O.

2. Write short notes on any **two** of the following : 7.5×2=15

(i) Micro injection

(ii) Xenotransplantation

(iii) Retroviruses

3. What are the main steps in transgenesis? Describe various ways of gene delivery in the target organism. 15

4. Describe the various methods of cloning and maintaining of cell lines. 15

5. Discuss the recent developments in the use of tissue engineering in therapeutics. 15

6. Describe various types of gene therapy. Elaborate the vectors involved in gene therapy. 15

7. Discuss the role of biotechnology in treating the infertility in humans. 15

8. Describe the technique of embryo transfer in cattle step by step. 15

9. Discuss the various steps involved in the DNA finger printing. 15

10. Write a brief note on organ transplantation and tissue typing. 15

(20518) Roll No. .....

B. Sc. (Biotech.)-III Year

NS-3474

B. Sc. (Biotechnology) Examination, May 2018

Animal Biotechnology

(B-302)

(New)

Time : Three Hours] *[Maximum Marks : 75*

Note : Answer any *Five* questions. All questions carry equal marks.

1. Elaborate the types of animal tissue culture with their characteristics. Differentiate between monolayer and suspension cultures.

2. Describe the various types of growth factors in animal cell culture. 15

3. Write short notes on any two of the following :
   (i) Applications of stem cells
   (ii) Targeted gene therapy
   (iii) Oocyte recovery. 7½×2=15

4. What is antisense gene therapy ? Describe the barriers related to gene delivery ? 15

5. Discuss the maintence and cloning of cell lines with suitable methods. 15

6. Describe the various steps of embryo transfer in animals with their advantages. 15

7. Write short notes on any two of the following :
   (i) Stirred Bioreactor
   (ii) Platelet derived growth factor
   (iii) Adenoviruses. 7½×2=15

8. Discuss the role of Biotechnology in disease diagnosis. 15

9. Discuss the cryopreservation techniques with special reference to semen and embryo. 15

10. Describe the methods of transgenesis with precautions at each step. 15

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(20620) Roll No. 1709351320 40

B.Sc. (Biotech.) - III Year

NS-3474(CV)

B.Sc. (Biotechnology) Examination, June - 2020

Animal Biotechnology

(B-302)

Time : Two Hours] *[Maximum Marks : 75*

Note : Answer any **four** questions. **All** questions carry equal marks.

1. Describe the various steps of embryo transfer in animals with their advantages.
2. Discuss the history and scope of cell and tissue culture in animals. Explain the advantages and disadvantages of animal tissue culture.
3. Write short notes on any **three** of the following:
   (a) Adenoviruses
   (b) Continuous cell lines
   (c) Split embryos
   (d) Organ culture

P.T.O.

4. Discuss the various types of growth factors in animal cell culture.

5. Write notes on the followings :

   (a) Targeted gene therapy

   (b) In vitro fertilization

6. Write an essay on transgenic animals mentioning a list of species where transgenic animals have already been produced.

7. Discuss the cryopreservation techniques with special reference to semen, ovum and embryo.

8. Discuss the recent developments in the use of tissue engineering in therapeutics.

9. Explain the role of Biotechnology in disease diagnosis.

10. Write notes on any **three** of the following:

    (a) Cloning

    (b) Transgenic sheep

    (c) Retroviruses

    (d) Micro injection