B SC BIOTECHNOLOGY
Fourth Semester
ANIMAL BIOTECHNOLOGY
(BBT - 18)

Duration: 3Hrs. **Full Marks: 70**

Part-A (Objective) =20
Part-B (Descriptive) =50

PART-B (Descriptive)

Duration: 2 hrs. 40 mins. **Marks: 50**

1. Write short notes on (any five): 2×5=10

a) What is Roux bottle?

b) What are stem cells?

c) What are transgenic animals?

d) Define microinjection.

e) Differentiate between azoospermia and oligospermia.

f) What do you mean by superovulation?

g) What is significance of IVF in cattle?

2. Answer the following questions (any five): 3×5=15

a) Explain gene therapy.

b) Differentiate between finite and infinite cell line.

c) Explain the process of SCNT.

d) Write a short note on serum.

e) What are hematopoietic stem cells?

f) Explain monoclonal antibodies.

g) What are interferons?

3. Answer the following questions (any five): 5×5=25

a) Describe the basic constituents of a suitable animal cell culture medium.

b) Write a short note on tissue plasminogen activator (tPA).

c) Describe how a transgenic animal can be created with emphasis on gene construct.

d) Describe the process of IVF in humans.

e) Describe any two methods of organ culture.

f) State some applications of transgenic animals.

g) Describe any two methods of transfecton used for creation of transgenics.

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Duration: 20 minutes **Marks – 20**

PART-A (Objective)

Time: 20 mins **Total Marks: 20**

I. Choose the correct answer: **1×20=20**

1.Fill in the blanks: 1x10=10

a) SCID stands for .....

b) Interferons are produced as a result of attack by .....

c) An example of scorable marker is .....

d) Liposomes are biochemically .....

e) ..... is known as father of vaccinology.

f) A vector used for creation of transgenic animals is .....

g) An example of a disease that can be cured by gene therapy is .....

h) In case of Sickle cell anaemia, glutamic acid is replaced by .....

i) The pH of human blood is around .....

j) SCNT stands for .....

2.Match the following: 1x10=10

1. HEPES	a) Continuous cell line
2. Raft Method	b) RNA Polymerase
3. He La	c) Transfection method
4. Silicon	d) antifoam reagent
5. Macroglobulin	e) serum free media
6. Promoter	f) buffer
7. MCDB 110	g) Organ culture
8. RPMI 1640	h) Haemophilia A
9. Electroporation	i) serum containing media
10.Blood Factor VIII	j) Trypsin inhibitor

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