Printed Pages: 01 **Sub Code: NBT801**

Paper Id: 900044 **Roll No.** | | | | | | | | | | |

BTECH

(SEM VIII) THEORY EXAMINATION 2018-19

ANIMAL BIOTECHNOLOGY

Time: 3 Hours ***Total Marks: 100***

SECTION A

1. Attempt **all** parts. Each part carries equal marks : **(2X10=20)**

(a) Give the names of four different animal cell line and there commercial use of.
(b) What is serum? Describe the role of serum in animal cell culture
(c) Shed light on the horizontal and vertical laminar air flow.
(d) Reveal the basic composition of Basic salt solution (BSS).
(e) How much concentration of Co2 is used animal cell culture? Describe its role.
(f) Comment on monoclonal antibodies.
(g) Entitle any two commercial vaccines and two therapeutic proteins produced by animal cell lines.
(h) Give your views on test tube baby.
(i) Why Plasma from adult chicken is preferred over mammalian Plasma?
(j) What will happen if lactate will accumulate in the animal cells?

SECTION B

2. Attempt any three question from this section (10x3=30)

(a) Make a distinction between different bioreactors used for culturing animal cell lines.
(b) Describe any three basic but specific devices used in animal cell culture lab.
(c) Elucidate the principal of buffering in growth of cell line.
(d) Outline the different steps used in monoclonal antibodies production.
(e) Talk about the common contaminants which distress cell culture.
(f) Illuminate the embryo transfer technology.

SECTION- C

3. Attempt any one part of the following: (10x1=10)

(a) Disclose the types of media and their composition used in cell culture.
(b) Communicate on the varied physicochemical parameters which may influence the growth of animal cell lines.

4. Attempt any one part of the following: (10x1=10)

(a) Give detail account on cryopreservation methods used for cell lines.
(b) How you will develop and characterize a new neural cell line?

5. Attempt any one part of the following: (10x1=10)

(a) Mark out the different applications of animal cell lines in details.
(b) Write to the point notes on the application of animal cell lines in toxicity testing of drugs and environment pollutant, with suitable example

6. Attempt any one part of the following: (10x1=10)

(a) Give a concise picture on role of aeration and rotating chambers in scaling up.
(b) Concisely describe: Monolayer culture, micro-carriers and multi-array disc.

7. Attempt any one part of the following: (10x1=10)

(a) How superovulation helps in helps in in vitro- fertilization?
(b) Write short notes on the needs and role of biotechnology in controlling fertility.