Question paper contains 2 printed pages.

(Pt. - III)

000122

Roll No. _

By. Tech.

8007 - III

B.Sc. (Part - III) EXAMINATION - 2020

(Faculty of Science)

(Common to Three and Five Year Integrated Course)

BIOTECHNOLOGY

(Paper-BT-703)

(Animal Biotechnology)

Time Allowed: Three Hours

Maximum Marks: 50

Note : Answer of all questions (short answer as well as descriptive) are to be given in the main answer-book only. Answers of short answer type questions must be given in sequential order. Similarly all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book. Write your roll number on question paper before start writing answers of questions.

Question No. 1 is compulsory. Answer five questions in all, selecting at least one question from each Section.

10x1 = 10

1. Briefly explain the following :
   (a) Write the name of first vaccine developed by animal cell culture.
   (b) Which is more effective as disinfectant 95% alcohol or 70% alcohol and why?
   (c) Why sodium bicarbonate is added to cell culture media.
   (d) Explain the function of phenol red in the media.
   (e) Differentiate primary and secondary cell culture?
   (f) What are the different types of biological safety cabinets?
   (g) Define cell confluency.
   (h) Why myeloma cells are used in hybridoma technology?
   (i) Differentiate adherent and suspension cell lines?
   (j) What is the function of DMSO in freezing cells?
2. Explain the milestone discoveries and developments in animal tissue culture. 10

OR

Define general principles of aseptic technique. Describe various methods of sterilization. 3+7

3. Describe hazards and safety involved in the setting up of cell culture laboratory. 5+5

OR

What is cell quantification? Describe any two methods of cell counting in cell culture. 3+7

4. List out the steps involved in the scaling up of animal cell culture.

OR

Describe in brief various cell viability and cytotoxicity assays.

5. Describe the various steps involved in making a hybridoma and applications of hybridoma techn

OR

Describe principle, process, applications and challenges of tissue engineering.