

A Printed Pages : 3
(21119) Roll No.
M.Sc. (Biotech.) III Sem.

NP-3340

M.Sc. (Biotechnology) Examination,
November-2019

**ANIMAL BIOTECHNOLOGY AND
IMMUNOLOGY**

M.Sc. (Biotech.)
(H-303)

Time : Three Hours [Maximum Marks : 50]

Note : Attempt questions from all sections as per instructions.

Section-A

Very Short Answer Questions

Note : Attempt all the five questions. Each question carries 2 marks. Very short answer is required not exceeding 75 words. $5 \times 2 = 10$

1. Cytokines
2. Immunity
3. Hapten

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(2)

4. Lymph nodes
5. Artificial Skin

Section-B

Short Answer Questions

Note : Attempt any two questions out of the following three questions. Each question carries 5 marks. Short answers required not exceeding 200 words.

$2 \times 5 = 10$

6. Define autoimmunity and describe two autoimmunity diseases.
7. Describe five structure of IgG and its diversity.
8. Write strategies for the development of vaccines.

Section-C

Detailed Answer Questions

Note : Attempt any three questions out of the following five questions. Each question carries 10 marks. Answer is required in detail. $10 \times 3 = 30$

9. Write an essay on antigen and antibody reactions.

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10. What do you mean by tissue and organ culture
summerise is methods in detail.
11. Write notes on :
 - (a) ELISA
 - (b) MHC
12. What is animal cloning ? Describe in detail the
ethical and social issues regarding with human
cloning.
13. Write notes on :
 - (a) Transgenic animal
 - (b) *in vitro* fertilization