

Roll No. ....

(07/21-II)

**13711**

**M. Sc. EXAMINATION**

(For Batch 2017 & Onwards)

(Fourth Semester)

**ZOOLOGY**

**ZOO-401**

**Immunology**

*Time : Three Hours*

*Maximum Marks : 70*

**Note :** Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory.

1. Write short notes on the following :  $5 \times 2 = 10$

- (a) Primary lymphoid organs
- (b) Dendritic cells
- (c) Immunoglobulins
- (d) Innate Immunity
- (e) Natural killer cells.

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P.T.O.

### Unit I

2. Explain the cell types of innate immunity along with their DC markers. 15

*Or*

3. Describe the fate of haematopoiesis upto cellular lineages. 15

### Unit II

4. Describe different antibody classes and their biological activities. 15

*Or*

5. Illustrate the CDRs and Constant region Domain in various antigenic determinants on Immunoglobulins. 15

### Unit III

6. Describe the regulation mechanism of complement system. 15

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*Or*

7. Explain different Cytokine related diseases in detail. 15

### Unit IV

8. Describe any two organ specific autoimmune diseases. 15

*Or*

9. Explain different varieties of ELISA. 15

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