Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov/Dec – 2018**

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|  |  |  |  |
| **Code :** | **14BT2017** | **Duration :** | **3hrs** |
| **Sub. Name :** | **IMMUNOLOGY** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

**(**Draw neatly labelled diagrams wherever necessary)

|  |  |  |  |  |
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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Elucidate the structure and function of secondary lymphoid organs. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Explain Heamatopoisis with a neat diagram. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | Describe in detail the classes of antibodies, their properties and functions | CO1 | 20 |
| (OR) | | | | |
| 4. |  | Elucidate the process of signaling and the role of modulators in regulating the immune system. | CO1 | 20 |
|  |  |  |  |  |
| 5. |  | Explain in detail the processing and presentation of antigen by MHC-I. | CO2 | 20 |
| (OR) | | | | |
| 6. | a. | Distinguish between T-dependent and T-independent B-cell activation. | CO2 | 10 |
|  | b. | Elucidate the mechanism of how CD8+ cytotoxic T-Cells are activated and how they kill their target cell. | CO1 | 10 |
|  |  |  |  |  |
| 7. |  | Elucidate the alternate pathway of complement activation. | CO2 | 20 |
| (OR) | | | | |
| 8. |  | Explain the etiology, pathology and treatment of Graves Disease and Myasthenia gravis. | CO3 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Discuss the contribution of and the controversies surrounding vaccination. | CO3 | 20 |