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



**End Semester Examination – Nov / Dec – 2019**

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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)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Describe in detail the structure and function of primary lymphoid organs. | CO1 | 20 |
| **(OR)** | | | | |
| 2. |  | Explain Hematopoiesis with a neat diagram. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | Dissect and describe the structure of Immunoglobulin. | CO1 | 20 |
| **(OR)** | | | | |
| 4. |  | Elucidate the types, properties and the role of cytokines in regulating the immune system. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Explain in detail the processing and presentation of endogenous antigens. | CO2 | 20 |
| **(OR)** | | | | |
| 6. | a. | Elucidate extravasation. | CO2 | 10 |
| b. | Distinguish between T-dependent and T-independent B-cell activation. | CO1 | 10 |
|  |  |  |  |  |
| 7. |  | Elaborate on the classical pathway of complement activation. | CO2 | 20 |
|  |  |  |  |  |
| **(OR)** | | | | |
| 8. |  | Describe any two auto-immune diseases in detail. | CO3 | 20 |
|  | | **Compulsory**: |  |  |
| 9. |  | Discuss the contribution of and the controversies surrounding vaccination. | CO3 | 20 |