

M.Sc.(Microbiology) CBCS Pattern Semester-IV
PSMBT-15 - Paper-III : Immunology

P. Pages : 1

Time : Three Hours



GUG/W/23/11410

Max. Marks : 80

-
- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw diagrams wherever necessary.

1. Write in detail about development and maturation of B and T lymphocytes? **16**
- OR**
- a) Which are the most common antigen-presenting cells? Discuss their role in providing immunity. **8**
- b) What is the process of classical pathway of complement system? **8**
2. Write in detail the structure and functions of different types of immunoglobulins. **16**
- OR**
- a) Write the principle and procedure of complement fixation test? **8**
- b) Compare between Southern blotting and western blotting technique? **8**
3. Write in detail about the mechanism of B-cell tolerance and T-cell tolerance. **16**
- OR**
- a) What are different types of auto-immune disorders? Give examples. **8**
- b) Compare the pathogenesis of Hashimoto's disease and Grave's disease. **8**
4. What are the different types of lymphatic cancer? Write each type in detail. **16**
- OR**
- a) What are tumor markers? How they can be used to differentiate from normal cells? **8**
- b) What is the mechanism of graft acceptance and rejection? **8**
5. Write note on-
- a) What is the function of MHC I and MHC II? **4**
- b) What are monoclonal antibodies and give their applications. **4**
- c) What is the difference between immediate and delayed hypersensitivity? **4**
- d) Write short note on Immuno-suppressive therapy. **4**
