

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

P. Pages : 1

Time : Three Hours



GUG/S/25/11410

Max. Marks : 80

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

1. Describe the mechanism of humoral and cellular immunity with suitable examples. **16**
OR
Write detailed note on-
a) Thymus dependent and independent antigens. **8**
b) Activation and regulation of complement system. **8**
2. What is complete antigen? Describe the characters determining antigenicity in detail. **16**
OR
a) Describe mechanism and applications of complement fixation reactions. **8**
b) Explain immunofluorescence mechanism of antigen antibody reaction. **8**
3. Define hypersensitivity explain the mechanism of delayed hypersensitivity with suitable example. **16**
OR
a) Explain B-cell and T-cell Tolerance as immunological tolerance in detail. **8**
b) Describe types and examples of auto-immune disorders in detail. **8**
4. Explain the use of biochemical and Immunological tumor markers. **16**
OR
a) Discuss immunology of graft rejection and mechanism of graft rejection with suitable example. **8**
b) Add a detail note on specific immunosuppressive therapy with example. **8**
5. Add short notes on-
a) Hybridoma Technology. **4**
b) Systemic Lupus. **4**
c) Delayed hypersensitivity. **4**
d) Hodgkin disease. **4**
