

PATHOLOGY

PAPER –IV

PATHO/J/13/32/IV

Time : 3 hours

Max. Marks : 100

Attempt all questions in order.

Each question carries 10 marks.

1. Discuss the classification and morphology of leprosy. What are the various reactions encountered in leprosy. 7+3
2. Write short notes on: 5+5
 - a. Polarising microscopy in diagnostic pathology
 - b. Role of prostaglandins in acute inflammation
3. What is Epithelial Mesenchymal Transition (EMT)? What are its molecular pathways and significance in malignancy? 4+3+3
4. Write short notes on: 5+5
 - a. Pathogenesis of vascular spread of tumours.
 - b. Plasticity of stem cells and its clinical significance.
5. Define innate and adaptive immunity. Describe the cellular and molecular mechanisms of innate immunity. 3+7
6. Describe the various mechanisms of recognition and rejection of allografts. Describe in brief the morphology, immunocytochemistry and electron microscopy of chronic antibody mediated kidney transplant rejection. 7+3
7. Give the various causes with examples of genetic predisposition to cancer. What is the interaction between genetic and non genetic factors? 7+3
8. Write short notes on: 7+3
 - a. Gene microarray technology
 - b. Tissue microarrays
9. Describe the genetic abnormalities, pathophysiology and clinical correlation of cystic fibrosis (mucoviscidosis). 4+3+3
10. Enlist the various lysosomal disorders along with their specific defects. Describe the clinical features and pathology of different types of Niemann-Pick disease. 4+6
