Write short notes on:

1. a) Pathophysiology of osteoporosis.  
   b) Pathophysiology of disseminated intravascular coagulation.  

2. a) What is sarcoidosis? Give its etiology and pathogenesis.  
    b) Morphological changes in various organs in sarcoidosis.  

3. a) Mechanism of hematogenous spread of tumors.  
    b) Telomerase activity in health and disease.  

4. a) Antinuclear antibodies – immuno-florescence pattern and interpretations.  
    b) Role of electron microscopy in diagnostic pathology.  

5. a) Graft versus host disease.  
    b) Mechanism of iron absorption.  

6. a) Prenatal diagnosis - methods & utility.  
    b) Methods of evaluation of HbA1C, its role in diagnosis and monitoring of diabetes mellitus.  

7. a) Pathogenesis of autoimmune thyroiditis.  
    b) Role of trace elements in health and disease.  

8. a) Microarray technique & its applications.  
    b) Role of IHC in differential diagnosis of lymphoproliferative lesions.  

9. a) What is an atheroma?  
    b) Various risk factors and pathogenesis of atherosclerosis.  
    c) Various acute coronary events and their consequences.  

10. a) Mechanism of apoptosis.  
     b) Angioneurotic oedema.  

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