Write short notes on:

1. a) Molecular pathology of embryonal tumours of the CNS.  
   b) Pathogenesis of anaphylactic shock.  

2. a) Haematopoietic stem cells: regulatory network and  
    De novo generation.  
   b) DNA mismatch repair defects in carcinogenesis.  

3. a) In-vitro diagnosis of hypersensitivity reaction.  
    b) Pathogenesis of ageing.  

4. a) Thromboembolism in children.  
    b) Principle & applications of confocal microscope.  

5. a) GATA 3 and its role in tumour diagnosis.  
    b) Hypocomplementemia and its disorders.  

6. a) Major abnormalities in immune functions in patients of  
    AIDS.  
   b) Chemotaxis and chemotactic agents.  

7. a) Autophages.  
    b) Chromosomal instability.  

8. a) Hyper IgM syndrome.  
    b) Monoclonality of a tumour.  

9. a) Preneoplastic disorders.  
    b) Structure of amyloid.  

10. a) Disorders of endogenous pigments.  
    b) APUD cells of GIT.  

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