GASTROENTEROLOGY
PAPER – I

Write short notes on:

1. a) Role of Toll Like Receptors (TLR) in Innate Immunity.  
   b) Genetics of inflammatory bowel disease.  
      5+5

2. a) Pathogenesis of antibiotic induced/associated diarrhea and Pseudomembranous colitis.  
   b) Pharmacological basis of the use of 5-HT₃ antagonists in IBS – diarrheal type.  
      5+5

3. a) Draw a diagram showing the structure of the various layers of the human colon. What changes are expected in a patient with long standing ulcerative colitis.  
   b) Draw a diagram of the micro-anatomy of the liver with reference to the acinar structure.  
      (3+2)+5

4. a) Anatomical basis of Zenker’s Diverticulum.  
   b) Structure and function of the Lower Esophageal Sphincter.  
      5+5

   10

6. a) Embryological basis of P.divisum  
   b) Life cycle of Strongyloides stercoralis infection in humans.  
      5+5

7. a) Principle of NBI (Narrow Band Imaging) and its utility in GI disease.  
   b) Pharmacological basis of drug interaction in a patient on Clopidogrel who is recently started on Omeprazole (Proton Pump Inhibitor).  
   c) Which would be the safest PPI for this patient: give justification.  
      (2+2)+4+2

8. a) Define the term “Hepatic Granuloma”.  
   b) Various causes of Hepatic Granulomas.  
   c) Draw a diagram of a hepatic granuloma as seen on liver biopsy in a patient with disseminated tuberculosis.  
      2+6+2

9. a) Anatomical structure of the human anal canal.  
   b) Structure and function of “M” cells and Peyer’s patches.  
      5+5

    ***********************  
    5+5