GASTROENTEROLOGY

PAPER – I

GASTRO/J/16/10/I

Time : 3 hours
Max. Marks : 100

Important instructions:

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

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

2. a) Pathogenesis of antibiotic induced/associated diarrhea and Pseudomembranous colitis. 5+5
   b) Pharmacological basis of the use of 5-HT_3 antagonists in IBS – diarrheal type.

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. (3+2)+5
   b) Draw a diagram of the micro-anatomy of the liver with reference to the acinar structure.

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

5. Role of NOD-2/CARD-15, Autophagy and T_H17 cells in the pathogenesis of Crohn's disease. 10

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

7. a) Principle of NBI (Narrow Band Imaging) and its utility in G I disease. (2+2)+4+2
   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.

8. a) Define the term "Hepatic Granuloma". 2+6+2
   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.

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

10. Pathophysiology & diagnosis of Protein Losing Enteropathy. 5+5

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