GASTROENTEROLOGY
PAPER – I

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) What is PEM?
   b) Different types of PEM?
   c) Various nutritional assessment techniques used in PEM.

2. Describe in relation to enteric microbiota:
   a) What is a metagenome?
   b) Techniques used to identify non cultivable microbiota.
   c) Major phytotypes of enteric microbiota.
   d) Beneficial functions of human microbiota.

3. Immunopathogenesis of celiac disease:
   a) Innate immune responses.
   b) Adaptive immune responses.
   c) Autoantibodies.
   d) Intestinal permeability defects.

4. a) Pathophysiology of functional dyspepsia.
   b) Types of functional dyspepsia.

5. Corrosive injury to upper G I tract:
   a) Types of corrosive injuries and their features.
   b) Endoscopic grading of corrosive injuries.
   c) Approach to management of corrosive injury.

6. Regarding fistulae in inflammatory bowel disease:
   a) Define fistulas.
   b) Classification of fistulas.
   c) Factors which are associated with non healing of fistulas.
   d) Approach to the management of fistulas.

7. Chicago classification of esophageal motility disorders and the treatment options for each type of esophageal motility disorders.

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8. **Regarding Helicobacter pylori and gastric cancer:**
   a) What is Correa pathway and role of H.pylori?
   b) Host, environmental and bacterial (H.pylori) factors that enhance risk of gastric cancer.
   c) Genetic variations in H.pylori that predispose to gastric cancer.

9. **Chemoprevention of colorectal cancer:**
   a) What are primary and secondary chemoprevention?
   b) Various modalities of chemoprevention.
   c) Outcome of this approach in preventing colorectal cancer.

10. **Briefly explain the following terms which are used to describe interaction of microbe with epithelial cells:**
    a) Pathogen associated molecular patterns.
    b) Pattern Recognition Receptors.
    c) Antigen presenting cells.