**First-Year (Human Anatomy, Physiology, Biochemistry)**

**Prompt 1: Functional & Structural Reasoning Questions**

*"Generate 'Why & What' reasoning-based questions for the [Topic]. These should focus on the logic behind specific structures or functions and their roles in maintaining normal physiology or anatomy. Provide detailed answers that explain the significance of the topic in a simple yet informative manner."*

* **Key Characteristics:**
  + Emphasize **functional and structural significance** in normal anatomy and physiology.
  + Encourage understanding of the **‘why’ behind physiological processes** related to the disease.

**Prompt 2: Case-Based Problem-Solving Questions**

*"Generate problem-based questions for the [Topic]. Each question should focus on identifying a specific anatomical, physiological, or biochemical issue, emphasizing reasoning and logical analysis. Provide concise, structured answers explaining the problem and its underlying mechanisms. The questions should be tailored for undergraduate medical students (e.g., MBBS 1st-year) and avoid advanced postgraduate-level complexity."*

* **Key Characteristics:**
  + Focus on **"Why" and "How" questions**.
  + Relate **anatomical and physiological disruptions** to early disease manifestations.

**Prompt 3: Justification-Based Questions**

*"Generate justify/defend reasoning questions for the [Topic]. These should challenge the student to provide logical reasoning for clinical or physiological practices related to the topic. Provide answers that emphasize evidence-based reasoning and understanding."*

* **Key Characteristics:**
  + Include **logical justifications** for anatomical or physiological abnormalities.
  + Encourage students to **defend their answers with structured reasoning**.

## **Second-Year (Microbiology, Pharmacology, Pathology)**

### ****Prompt 1: ‘Why & What’ Reasoning-Based Questions****

"Generate 'Why & What' reasoning-based questions for the [Topic]. These should focus on the microbiological, pathological, and pharmacological aspects of the disease. Provide detailed answers explaining the mechanisms, clinical implications, and drug interactions relevant to the topic."

* **Key Characteristics:**
  + Explain **why** specific pathogens, immune responses, or pathological mechanisms contribute to the disease.
  + Explore **what** histological and biochemical changes occur and their consequences.
  + Connect **drug mechanisms** to their physiological effects in disease treatment.

### ****Prompt 2: Justify/Defend Reasoning Questions****

"Generate justify/defend reasoning questions for the [Topic]. These should challenge the student to provide logical reasoning for pathological changes, microbiological mechanisms, or pharmacological interventions related to the disease. Provide structured answers emphasizing evidence-based reasoning and understanding."

* **Key Characteristics:**
  + Justify **why specific pathological processes lead to clinical manifestations**.
  + Defend **drug selection, treatment regimens, and antibiotic choices** based on disease mechanisms.
  + Provide **rationale for choosing specific diagnostic and therapeutic approaches**.

## **Third-Year (Forensic Medicine & Toxicology, Community Medicine)**

### ****Prompt 1: ‘Why & What’ Reasoning-Based Questions****

"Generate 'Why & What' reasoning-based questions for the [Topic]. These should explore the forensic, medico-legal, and public health implications of the disease. Provide detailed answers explaining the epidemiological trends, toxicological risks, and medico-legal aspects."

* **Key Characteristics:**
  + Explain **why** the disease has forensic, toxicological, or public health significance.
  + Explore **what** forensic or epidemiological markers help identify cases.
  + Discuss **what toxicological exposures or risk factors contribute to disease development**.

### ****Prompt 2: Justify/Defend Reasoning Questions****

"Generate justify/defend reasoning questions for the [Topic]. These should challenge the student to provide logical reasoning for forensic findings, public health policies, and toxicological effects related to the disease. Provide structured answers emphasizing evidence-based reasoning and legal frameworks."

* **Key Characteristics:**
  + Justify **why forensic findings correlate with disease pathology**.
  + Defend **public health interventions, legal regulations, or epidemiological policies**.
  + Provide **rationale for identifying occupational, toxicological, or environmental disease risks**.

## **Fourth-Year (General Medicine, Surgery, Pediatrics, OBG, and Clinical Subjects)**

### ****Prompt 1: ‘Why & What’ Reasoning-Based Questions****

"Generate 'Why & What' reasoning-based questions for the [Topic]. These should focus on the clinical reasoning, differential diagnosis, and treatment decisions. Provide detailed answers explaining the pathophysiology, clinical decision-making, and surgical or medical interventions."

* **Key Characteristics:**
  + Explain **why** certain symptoms present in a specific manner.
  + Discuss **what** factors differentiate the disease from similar conditions.
  + Analyze **why** specific surgical or medical interventions are chosen.

### ****Prompt 2: Justify/Defend Reasoning Questions****

"Generate justify/defend reasoning questions for the [Topic]. These should challenge the student to provide logical reasoning for clinical decisions, differential diagnosis, and patient management strategies. Provide structured answers emphasizing evidence-based medicine and patient-centered care."

* **Key Characteristics:**
  + Justify **why a particular treatment or surgical approach is optimal**.
  + Defend **differential diagnoses based on clinical presentation and investigation results**.
  + Provide **rationale for ethical, medico-legal, or communication strategies in patient care**.