PACIFIC MEDICAL UNIVERSITY, UDAIPUR

Ph.D. Entrance Syllabus – Medicine

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1. Basic Sciences Related to Medicine

- Anatomy relevant to internal medicine
- Physiology of organ systems
- Biochemistry & metabolism
- Pathology (general + systemic)
- Microbiology & immunology
- Pharmacology & therapeutics
- Genetics & molecular medicine

2. Clinical Medicine (System-wise)

A. Cardiovascular System

- Coronary artery disease
- Hypertension
- Heart failure
- Arrhythmias
- Valvular heart diseases
- Cardiomyopathies
- Rheumatic heart disease
- Pericardial diseases

B. Respiratory System

- COPD, asthma
- Pneumonia
- Tuberculosis
- Interstitial lung disease
- Pleural effusion
- Pulmonary embolism
- Sleep apnea

C. Gastroenterology

- Liver diseases (cirrhosis, hepatitis, portal hypertension)
- Pancreatitis
- GI bleeding
- Inflammatory bowel disease
- GERD, peptic ulcer disease
- GI infections

D. Nephrology

- Acute kidney injury
- Chronic kidney disease
- Glomerulonephritis
- Nephrotic syndrome
- Electrolyte & acid-base disorders
- Dialysis & renal transplant

E. Endocrinology

- Diabetes mellitus
- Thyroid disorders
- Adrenal disorders
- Pituitary disorders
- Metabolic syndrome
- Calcium & bone disorders

F. Neurology

- Stroke
- Seizures & epilepsy
- Headache & migraine
- Neuroinfections
- Neuromuscular disorders
- Dementia & Parkinson’s disease

G. Hematology

- Anemia
- Leukemia

- Lymphoma
- Bleeding disorders
- Thrombophilia
- Myeloproliferative disorders

H. Rheumatology

- Rheumatoid arthritis
- SLE
- Spondyloarthropathies
- Vasculitis
- Gout

I. Infectious Diseases

- Sepsis & shock
- Tropical infections
- HIV/AIDS
- Opportunistic infections
- Antimicrobial stewardship

J. Critical Care Medicine

- ICU management
- Mechanical ventilation
- ARDS
- Shock management
- Sepsis protocols

K. Geriatrics & Preventive Medicine

- Common geriatric syndromes
- Health maintenance
- Vaccinations
- Lifestyle & risk factor modification

3. Investigations & Diagnostics

- ECG
- Chest X-ray
- Ultrasound & CT scan

- MRI
- Endoscopy
- Laboratory interpretation
    - ABG, electrolytes, LFT, KFT, hematology
- Point-of-care tests

4. Pharmacology & Therapeutics

- Drug mechanisms
- Adverse drug reactions
- Drug interactions
- Antibiotics & antimicrobial resistance
- Immunosuppressants
- Cardiovascular drugs
- Diabetes drugs
- Emergency drugs

5. Research Methodology & Biostatistics

- Study designs
- Protocol writing
- Sample size calculation
- Statistical tests
- Evidence-based medicine
- Clinical trials
- Ethics in research
- ICMR guidelines
- Scientific writing

6. Public Health & National Programs

- National health programs (NCD, TB, HIV, etc.)
- Preventive medicine principles
- Screening & health promotion
- Health system & policy basics

7. Ethics & Legal Aspects

- Medical ethics
- Consent
- Medico-legal issues
- End-of-life care & palliative care
- Clinical negligence