### 12. SYLLABUS

The Syllabus for the test shall comprise of subjects /knowledge areas as per the Graduate Medical Education Regulations issued by Medical Council of India with prior approval of Government of India. An extract of the same is as follows:

(Kindly refer to MCI website www.mciindia.org for complete document)

#### PRE AND PARA CLINICAL SUBJECTS

Marks 100

#### **ANATOMY**

General Anatomy
Basic tissues to body, Terminology & Nomenclature
Elements of Anatomy
Osteology, Arthrology, Myology, Angiology, Neurology

3. Regional Anatomy : Upper limb, Lower limb Thorax-including diaphragm Abdomen and

Pelvis, Head, Neck Brain and Spinal cord

Embryology : Development of individual organs and systems, Postnatal growth &

development

5. Histology : General Histology Microanatomy of individual organs & systems

6. Human Genetics : Principles of Human genetics and Molecular biology

7. Radiological Anatomy : Skiagrams, Special X-rays, Principles of imaging techniques.

8. Surface Anatomy : In cadavers, in the living

9. Sectional Anatomy : Thorax, Abdomen, Head, Neck and Brain

#### **PHYSIOLOGY**

- 1. General Physiology
- 2. Body fluids Blood
- 3. Nerve and Muscle
- 4. Gastrointestinal Tract
- Kidney
- 6. Skin and Body temperature
- 7. Endocrine Glands
- 8. Reproduction
- 9. Cardiovascular System
- 10. Respiratory System
- 11. Central Nervous Systems
- 12. Special Senses

#### **BIOCHEMISTRY**

- 1. Cell and Sub-cellular structures
- 2. Hydrogen Ion concentration Acid, Bases, Buffers, Handerson-Haselbach equation
- 3. Isotopes and their Application
- 4. Carbohydrates
- 5. Amino Acids, Peptides and Proteins
- 6. Lipids
- 7. Nuclear Acids
- 8. Enzymes
- 9. Vitamins
- 10. Biological Oxidation
- 11. Digestion and Absorption from GI Tract
- 12. Intermediary Metabolism
- 13. Carbohydrate Metabolism
- 14. Lipid Metabolism
- 15. Protein and Amino Acid Metabolism
- 16. Purine and Primidine Metabolism
- 17. Minerals

## NATIONAL BOARD OF EXAMINATIONS



- 18. Biochemical Genetics and Protein Biosynthesis
- 19. Tissue Biochemistry
- 20. Liver Functions
- 21. Nutrition and Energy Metabolism

#### **PATHOLOGY**

- 1. Cell injury
- 2. Inflammation and Repair
- 3. Immunopathology
- 4. Infectious diseases
- 5. Circulatory disturbances
- 6. Growth disturbances and Neoplasia
- 7. Nutritional and other disorders
- 8. Genetic disorder
- 9. Haematology
- 10. Cardiovascular Pathology
- 11. Respiratory Pathology
- 12. Pathology of Kidney and urinary Tract
- 13. Hepato-Biliary Pathology
- 14. Lymphoreticular System / Spleen
- 15. Reproductive System (male & female)
- 16. Diseases of the Breast
- 17. Musculoskeletal System
- 18. Endocrine pathology
- 19. Neuropathology
- 20. Dermato-Pathology
- 21. Ocular Pathology

#### MICROBIOLOGY

- 1. General Microbiology
- 2. Immunology
- 3. Bacteriology
- 4. General Virology
- Systemic Virology
- 6. Mycology
- 7. Parasitology
- 8. Clinical / Applied Microbiology

#### **PHARMACOLOGY**

- 1. General Pharmacology
- 2. Autonomic Nervous System
- 3. Cardio-vascular System
- 4. Diuretics
- 5. Drugs affecting blood and blood formation
- 6. Autocoids and related drugs
- 7. Respiratory System
- 8. Gastro-intestinal System
- 9. Endocrine pharmacology
- 10. Central Nervous System
- 11. Psychopharmacology
- 12. Drugs in Anaesthetic practice
- 13. Chemotherapy
- 14. Toxicology
- 15. Clinical Pharmacology and Rational drug use

#### FORENSIC MEDICINE

- 1. Definitions
- 2. Courts of India
- 3. Court procedures
- 4. Medical Certifications & medico-legal reports including dying declaration
- 5. Death
- 6. Changes after death
- 7. Inquest by police, magistrate and coroner
- 8. Identification
- 9. Examination of mutilated human remains
- 10. Medico-legal autopsies
- 11. Mechanical injuries and wounds
- 12. Examination of an injury case
- 13. Injuries due to physical agents & their medico legal importance
- 14. Asphyxial death
- 15. Death due to malnutrition, neglect battered babies
- 16. Dowry death
- 17. Virginity, sexual offences, sexual perversions
- 18. Legitimacy
- 19. Pregnancy and delivery
- 20. Infanticide
- 21. Biological fluids
- 22. Seminal stains
- 23. Forensic Psychiatry
- 24. Medical Jurisprudence
- 25. Toxicology

#### **CLINICAL SUBJECTS**

#### Marks 200

#### **GENERAL SURGERY**

- Hemorrhage and shock
- 2. Fluid, electrolyte and Acid balance, nutrition
- 3. Skin tumours, burns, skin grafting
- 4. Arterial diseases
- Venous diseases
- 6. Lymphatic and Lymph nodes
- 7. Wounds
- 8. Specific and non-specific injections
- 9. Tumors, Cysts, Ulcers and Sinuses and Fistulae
- 10. Infections of Hand and Foot
- 11. Diseases of muscle, tendons, bursae and fascia
- 12. Hernia
- 13. Umbilical granuloma, fistula, adenoma
- 14. Abdominal Wall
- 15. Face, Teeth, Gums, Mouth, Tongue, Salivary glands, Neck
- 16. Thyroid Glands, Thyroglossal Tract and Endocrines
- 17. Breast
- 18. Sympathetic System
- 19. Cranio-Cerebral injuries
- 20. Brain, Nerves
- 21. Genito-Urinary System
- 22. Kidneys and Ureters
- 23. Urinary Bladder
- 24. Prostrate

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- 25. Urethra
- 26. Penis. Testis and Scrotum
- 27. Vasectomy and Recanalisation
- 28. Cardiothoracis System
- 29. Oesophagus, Stomach and Duodenum
- 30. Spleen, Liver, Gall Bladder and bile ducts
- 31. Pancreas
- 32. Peritoneum
- 33. Intestines, intestinal obstruction
- 34. Appendix
- 35. Rectum and Anal Canal

#### **ANESTHESIA**

- 1. Anatomy of upper airway
- 2. Physiology of Respiration O2/CO2 transport. Methods of oxygen therapy.
- 3. Pre-operative evaluation/pre-medication
- 4. Anaesthetic agents, stages of Anaesthesia
- 5. Principles and mechanism of administration of general anaesthetics, balanced Anaesthesia
- 6. IPPV, Endotracheal Intubations
- 7. Muscle Relaxants
- 8. Spinal/Epidural Anesthesia
- 9. Local Anesthesia
- 10. Cardiopulmonary resuscitation basic, use of simple ventilators
- 11. Monitoring
- 12. ICU, role of anaesthesiologist in ICU
- 13. Shock
- 14. Blood Transfusion and Fluid Electoral Balance
- 15. Sites of respiratory obstruction and management of airway in an unconscious patient
- 16. Poisonina
- 17. Role of anaesthesiologist in acute and chronic relief.

#### **ORTHOPEDICS**

- 1. Traumatology
  - Injuries of bones and joints Injuries of Lower Extremity
  - Injuries of the Spine Vascular Injuries
- 2. Cold Orthopedics
- 3. Regional Conditions
- 4. Neuro-Muscular Disorder
- 5. Bone and Joint Tuberculosis
- 6. Physical Medicine and Rehabilitation

#### **RADIO-DIAGNOSIS**

- 1. Respiratory System
- 2. Cardiovascular System
- 3. Gastrointestinal System
- 4. Obstetrics & Gynaecology
- 5. Skeletal System
- 6. Central Nervous System
- Excretory System

#### **RADIOTHERAPY**

- 1. Principles of Radiotherapy
- 2. Principles of Chemotherapy
- 3. Prevention and Early diagnosis of Cancer

- 4. Principles of Nuclear medicine
- 5. Common radiation reactions and management
- 6. Radiotherapy and chemotherapy in commonly seen cancers
- 7. Radio-isotopes in diagnosis and therapy

#### **PAEDIATRICS**

- 1. Vital statistics
- 2. Neonatology
- 3. Growth & Development
- 4. Nutrition
- 5. Infections
- 6. Genetics
- 7. Pediatric Emergencies
- 8. Central Nervous System
- 9. Gastrenterology
- 10. Nephrology
- 11. Endocrinology
- 12. Respiratory System

#### **MEDICINE**

- 1. Clinical Methods in the practice of Medicine
- 2. Common symptoms of disease
- 3. Nutrition/Exposure to Physical & Chemical Agents
- 4. Infections
- 5. Haematology
- 6. Respiratory System
- 7. Cardio-Vascular System
- 8. Gartro-Intestinal Tract
- 9. Emergency Medicine
- 10. Neurological System
- 11. Nephrology & Urinary system connected to Tissue Disorders
- 12. Endocrine System
- 13. Geriatrics

#### **TUBERCULOSIS AND RESPIRATORY DISEASES**

Diagnosis and management of common ailments affecting the chest with special emphasis on management and prevention of Tuberculosis and National Tuberculosis Control Programme.

#### **PSYCHIATRY**

- 1. History aspects and diagnosis & treatment of mental illness
- 2. Conduction of Mental Status Examination
- 3. Behavioral Sciences
- 4. Different psychoses Clinical features, diagnosis and management of :
- 5. Schizophrenia
- 6. Mania and depression
- 7. Anxiety disorders and hysteria
- 8. Dementia
- 9. Alcoholism
- 10. Drug Abuse
- 11. Psychiatric emergencies
- 12. Clinical features, diagnosis and management of psychiatric disorders of childhood and adolescence
- 13. Personality disorder

## NATIONAL BOARD OF EXAMINATIONS



#### DERMATOLOGY AND SEXUALLY TRANSMITTED DISEASES

- 1. Dermatological therapy
- 2. Lichen Planus
- 3. Diseases caused by Nutritional and Environmental Factors
- 4. Infective Disorders
- 5. Melanocytes, pigment metabolism and other disorders of Pigmentation
- 6. Allergic Disorders
- 7. Dermatitis and Eczema
- 8. Vesiculobullous Diseases
- 9. Alopecia and Hirsutism
- 10. Structure and functions of Sebaceous glands and Disease
- 11. Leprosy
- 12. Psorasis
- 13. STD

#### **OPHTHALMOLOGY**

- 1. Basic sciences Anatomy, Physiology, Pharmacology, Pathology, Elementary Optics, Diseases of the Eye
- 2. Conjunctiva
- 3. Cornea
- 4. Sclera
- 5. Uveal Tract
- 6. Lens
- 7. Vitreous
- 8. Glaucoma
- 9. Retina
- 10. Optic Nerve
- 11. Intra-Occular Tumors
- 12. Squint
- 13. Orbit
- 14. Lacrimal System
- 15. Lids
- 16. Refractive Errors
- 17. Injuries
- 18. Ophthalmic Surgery
- 19. Community Ophthalmology
- 20. Miscellaneous

#### **OTORHINOLARYNGOLOGY**

- 1. Diseases of the Ear
- 2. Diseases of Nose and Para Nasal sinuses
- 3. Diseases of Nasopharynx
- 4. Diseases of Trachea
- 5. Oesophagus

#### **OBSTETRICS AND GYNECOLOGY**

- 1. Anatomy of the Female reproductive Tract
- 2. Physiology of conception
- 3. Development of foetus and placenta
- 4. Diagnosis of pregnancy
- 5. Maternal changes in pregnancy
- 6. Antenatal care

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## NATIONAL BOARD OF EXAMINATIONS

- 7. Abnormal obstetrics
- 8. Normal labour
- 9. Normal puerparium
- 10. Breast Feeding
- 11. Care of new born
- 12. Medical termination of pregnancy
- 13. Family planning
- 14. Operative obstetrics
- 15. Post caesarian pregnancy
- 16. Pharmaco therapeutics in obstetrics
- 17. Safe motherhood
- 18. Maternal morbidity and morality
- 19. Medico legal aspects
- 20. RCH
- 21. Current topics
- 22. Vaginal discharge
- 23. Menstrual disorder
- 24. Fertility, infertility
- 25. Endometriosis and allied states
- 26. Genital injuries and fistulae
- 27. Genital infections
- 28. Genital prolapse
- 29. Tumours
- 30. Carcinomia
- 31. Radiotherapy in gynaecology
- 32. Chemotherapy in gynaecology
- 33. Endoscopy
- 34. Diseases of breast
- 35. Operative gynaecology

#### **COMMUNITY MEDICINE**

- 1. Evaluation of Public Health and Concepts of Health
- 2. Environment and Health
- 3. Health Education
- 4. Nutrition and Dietetics
- 5. Occupational Health
- 6. Medical Sociology and Community Mental Health
- 7. Fundamentals of Biostatistics
- 8. Basic Epidemiology
- 9. Epidemiology of Specific Diseases
- 10. Communicable and Non-Communicable Diseases
- 11. Demography
- 12. Reproductive and Child Health
- 13. School Health
- 14. Urban Health
- 15. Health System in India
- 16. Health Planning and Management including Disaster Management
- 17. International Health