

## **Syllabus for Ph.D Entrance Test /Subject: Medical Anatomy**

**General Anatomy: (Including Introduction & Terminology):** Descriptive terms, body planes and sections, basic organizational details of bones, muscles, joints and nerves, general features of muscular, vascular, nervous and locomotor systems of the body.

**Gross Anatomy:** Knowledge of the gross anatomy of the entire human body (Upper and Lower limbs, Abdomen, Pelvis & Perineum, Thorax, Head & Neck, Brain & Spinal Cord) including general layout of structure with details of fascia, compartments, muscles, arteries, veins and other vasculatures, lymphatics and nerves. All bones in detail with regard to their structure and parts and muscular attachments, actions and nerve supply. All joints and details of capsules, ligaments, movements and muscles producing movements. All nerve plexuses with details of root value, origin, formation, course, relations and distribution – details of vasculature, arteries and their branches, veins and tributaries and capillary systems- relations and systemic outlay of various parts and structures – necessary and applicable applied anatomy. Particular emphasis on Neuro-anatomy is required.

**Microscopic Anatomy/Histology:** General histology, Microscopic anatomy of almost all the tissues of the body including various methods commonly used for fixation, embedding, section cutting and staining.

**Embryology:** General embryology, Details of growth and development of organs and organ systems – probable congenital anomalies – specialization and differentiation.

**Radiological Anatomy:** Basic study of x-rays and normal details as seen – plain x-rays and contrast x-rays – reading of appearance of normal structures – basics of CT, MRI and ultrasonology. Reading of anatomical phenomenon in x-rays e.g. ossification and fusion lines, appearance or non appearance of ossification centers etc.

**Physical anthropology:** Elementary knowledge of the physical anthropology including determination of age, sex etc from the skeletal remains.

**Genetics :** Definition and explanation of genetics and genetic patterns – structural components related to genetics – theories and proponents of various genetic concepts – Chromosomes and aberrations – genes, mutation and aberrations – Eugenics – Population genetics – commonly encountered genetic abnormalities.