# MS ANATOMY

## 1. GENERAL ANATOMY

Epithelium: Classification, Simple and Compound epithelium, Glandular and Sensory epithelium.Connective tissue cells and fibres.
Cartilage – Structure &Types
Bone: Types, Periosteum, cells and matrix. Ossification–Vascularization, regeneration.
Joints: General classification with emphasis to structure and types of synovial joint and movements.

## 2. GENERAL EMBRYOLOGY

Introduction, Oogenesis, Ovarian cycle, Male reproductive system, Spermatogenesis, Fertilization and implantation; Bilaminar and Trilaminar germ discs, Intraembryonic mesoderm, Folding of the embryo, Formation of Placenta, Circulation of placenta, Foetal membrane, Twinning, Teratology.

## 3. UPPER LIMB

Bones, Fascia, Venous and lymphatic drainage, Cutaneous innervation and myotomes (Motor innervation) of Upper limb; Surface anatomy and the structures in the Pectoral and scapular regions; Mammary gland with special emphasis to its lymphatic drainage; Blood vessels, nerves (Brachial plexus) and lymph nodes in the axilla and their clinical significance; Muscles, blood vessels and nerves of arm, forearm and hand; Cubital fossa, fascia and compartments of palm and their clinical significance; all joints of upper extremity.

## 4. LOWER LIMB

Bones, Fascia, Venous and lymphatic drainage and their clinical significance, Cutaneous innervation and myotomes (Motor innervation) of Lower limb; Special emphasis to Posture and Gait; Structures in the gluteal region and their clinical significance. Structures in all three compartments of thigh and leg; Poplitea fossa;. Muscles and neurovascular structures in the sole of foot; Arches of foot and their applied anatomy; All joints of lower extremity.

## 5. THORAX

Skeleton, joints, neurovascular structures, muscles and movements of thoracic wall; thoracic apertures; Pleura, lungs and tracheobronchial tree and their surface marking and applied importance; Boundaries and contents of mediastinum and applied anatomy. Pericardium, Chambers and blood supply of heart and their applied

importance. Surface marking of borders and valves of heart and their relation to the areas of auscultation. Development of Heart and its anomalies. Arch of aorta, SVC, IVC, thoracic part of oesophagus, thoracic duct and azygos system of veins; Development of major blood vessels from aortic arches and their associated anomalies.

### 6. GENETICS

Genetic basis of congenital disorders, Structure of chromosome, Tissue culture and karyotyping, Abnormalities of Chromosomes with special emphasis to Klinefelter syndrome, Turner's syndrome and Down's syndrome, Chromosomal aberrations, Genetic counseling, Pedigree and Modes of inheritance.

### 7. HEAD AND NECK

Scalp; Face and its development; Pituitary gland, Cranial meninges and the dural venous sinuses; Eyelid and lacrimal apparatus; Nerves and vasculature of orbit; Extraocular muscles of Eyeball; Parasympathetic ganglia, Muscles of mastication, T.M. joint, Nasal cavity and Paranasal air sinuses. External, Middle and Internal ear. Cervical fascia, Pharynx, Larynx, Thyroid gland, its development and applied significance; Cranial nerves, sympathetic ganglia in the neck; Development of branchial arches.

### 8. BRAIN

Spinal cord – external features, blood supply and development. Medulla oblongata, Superficial & Deep blood supply of brain and their applied importance; Midbrain, Pons, Cerebellum; Ventricles of brain and subarachnoid cisterns; Sulci, Gyri and functional areas of the cerebrum. White matter of cerebrum – Internal capsule; Basal nuclei, Optic pathway, Thalamus; Development of brain and Functional columns. Ascending & descending tracts spinal cord and brain stem.

### 9. ABDOMEN AND PELVIS

Anterior abdominal wall – muscles, blood vessels and nerves. Incisions on the anterior abdominal wall, Rectus sheath and contents; Inguinal canal, Testis and spermatic cord; Peritoneum, its reflections and applied anatomy. Development of GIT – Rotation of midgut and its associated anomalies; Stomach, Duodenum, Colon, Pancreas, Spleen, Portal Vein, Liver & Gallbladder, Extrahepatic biliary apparatus; Diaphragm, its development and associated anomalies; Uterus, Ovary, Prostate; Rectum and Anal canal and their applied importance; Pelvic floor, Pelvic vessels, nerves and lymph nodes; Development of Urogenital system; Kidney, Suprarenal gland, Ureters, Urinary bladder; Development of external genitalia.

### 10. PERINEUM

Ischiorectal fossa, Perineal pouches, Perineal body, Pudendal canal, Pudendal Nerve.