VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT.

F.Y. M.B.B.S.

F) Radiological Anatomy

I) Introduction

Principles of plain radiograms and CT scan.

Identification of gross anatomical features in plain and contrast radiographs.

Identification of gross anatomical features in normal CT scan especially of the Abdomen and Head-Face-Neck-Brain regions.

Diagnostic procedures. Technical details (e.g. dye) are not necessary.

Level 2 : Estimation of age if epiphyseal line seen.

II) UPPER LIMB – X-Ray of

Shoulder region
Arm
Elbow region
Fore arm
Wrist and hand

III) LOWER LIMB

Hip region
Thigh
Knee region
Leg
Ankle region Foot

IV) ABDOMEN

Plain X-ray
Ba meal
Ba meal follow through
Ba enema
Oral cholecystogram
Intravenous urogram
Cystogram
Ascending pyelogram
Abdominal Aortogram
Hystero-salpingogram
Myelogram
CT abdomen

V) THORAX

Plain X-ray
Ba swallow
Bronchogram
CT mediastinum
High resolution CT lung

VI) HEAD-FACE

X-ray skull plain
Carotid angiogram
Vertebral arteriogram
CT Scan Brain

NECK

Plain X-ray cervical region

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G) SURFACE ANATOMY

I) SURFACE MARKING:

i) Upper Limb

NERVES: Radial nerve, Median nerve, Ulnar nerve, Axillary nerve, Musculocutaneous nerve

VESSELS: Axillary artery, Brachial artery, Radial artery, Ulnar artery, Superficial and deep palmar arches

ii) Lower Limb

NERVES: Femoral, Sciatic, Common peroneal nerves

VESSELS: Great saphenous & Small saphenous veins; Femoral, Popliteal & Dorsalis pedis arteries

iii) ABDOMEN

ORGANS: 9 regions and projection of organs in them; Stomach, Duodenum, Caecum, Appendix, Ascending,, transverse and descending colon, Pancreas, Liver, Gall bladder, Spleen, Kidneys (ventral and dorsal) Abdominal aorta

iv) **THORAX**

Heart and valves, Lungs, fissures and hilum; Pleurae, Trachea

v) **HEAD FACE NECK**

ORGANS: Parotid gland & duct

Middle meningeal artery, Facial artery

Pterion, Bregma, Reid's base line, Suprameatal triangle

Thyroid gland

Common carotid artery, External carotid artery, Internal carotid artery, Internal jugular vein, Trachea

vi) **Brain:** Lateral sulcus, Central sulcus, Median longitudinal fissure, Superior sagittal sinus, Sigmoid sinus, transverse sinus

II) LIVING ANATOMY:

i) Upper Limb

(BONY) LANDMARKS(PALPATION OF):

Clavicle, Spine of scapula, Inferior angle, Coracoid process, Epicondyles of humerus, Olecranon process of ulna; Head and styloid processes of radius and ulna, Heads of metacarpals (knuckles), Pisiform, Hook of Hammate

JOINTS (DEMONSTRATION OF MOVEMENTS):
Shoulder girdle, Shoulder joint, Elbow joint, Radio-ulnar joints, Wrist joint, 1st carpo-metacarpal joint, MP and IP joints

MUSCLES (DEMONSTRATION OF ACTION)
Principle of testing: Trapezius, Serratus anterior, Latissimus dorsi, Pectoralis major, Deltoid, Biceps Brachii, Brachioradialis, Brachialis, Extensors at the elbow, Supinators, Wrist extensors, Wrist flexors, Small muscles of the hand

NERVES: Dermatomes, Ulnar
Ulnar nerve thickening in Leprosy

VESSELS (PALPATION OF): Axillary artery, Brachial artery, Radial artery

OTHERS: Axillary groups of lymph nodes; Anatomical snuff-box (boundaries)

ii) Lower Limb

(BONY) LANDMARKS (PALPATION OF): Anterior superior iliac spine, Iliac crest, Tubercle of the iliac crest, Ischial tuberosity, Greater trochanter, Adductor tubercle, Head and neck of fibula, Lateral and medial malleoli, Tibial tuberosity, Subcutaneous surface of tibia, Patella
JOINTS (DEMONSTRATION OF MOVEMENTS): Hip , Knee , Ankle , Subtalar Joints
MUSCLES (DEMONSTRATION OF ACTION): Hip-Flexors, Extensors, Abductors, Adductors
Knee: Flexors, Extensors,
Ankle: Dorsiflexors, Plantar flexors
Subtalar: Invertors, Evertors
NERVES: Dermatomes, Sciatic, Tibial, Common peroneal, Femoral, Obturator Thickening of common peroneal nerve in Leprosy

VESSELS (PALPATION OF): Femoral, Popliteal, Dorsalis pedis, Posterior tibial
OTHERS: Ligamentum patellae, Inguinal lymph nodes
TENDONS: Semitendinosus, Semimembranosus, Biceps femoris, Iliotibial tract

iii) ABDOMEN

(BONY) LANDMARKS (PALPATION OF): Anterior superior iliac spine, Pubic tubercle
JOINTS (DEMONSTRATION OF MOVEMENTS): Intervertebral

MUSCLES (DEMONSTRATION OF ACTION): Obliques, Transversus abdominis, Rectus abdominis
NERVES: Dermatomes
OTHERS: Enlarged liver, spleen, kidneys, Abdominal quadrants and regions; Position of superficial and deep inguinal rings; Renal angle; McBurney's point;
Level2: Murphy's sign

iv) **THORAX (BONY) LANDMARKS(PALPATION OF):** Sternal angle, Counting of rib spaces, locating thoracic spines
JOINTS (DEMONSTRATION OF MOVEMENTS): Intervertebral
MUSCLES (DEMONSTRATION OF ACTION): Respiratory movements
NERVES: Dermatomes
OTHERS: Apex beat, Apices of the lungs, Triangle of auscultation

v) HEAD FACE NECK - **(BONY) LANDMARKS(PALPATION OF):** Nasion, Glabella, Inion, Mastoid process, Suprameatal triangle, Zygoma, Zygomatic arch, Angle of mandible, Head of mandible,
JOINTS (DEMONSTRATION OF MOVEMENTS): Temporomandibular joint
MUSCLES (DEMONSTRATION OF ACTION): Of Mastication, Of Facial expression Cranial nerves (I to XIII) testing
(PALPATION OF): Superficial temporal artery, Facial artery
(PALPATION OF**):** Symphysis menti, Hyoid bone, Thyroid cartilage, Cricoid cartilage, Tracheal rings, Suprasternal notch, Transverse process of atlas, Spine of C_7
(DEMONSTRATION OF MOVEMENTS): Atlanto-occipital joint, Cervical joints
(DEMONSTRATION OF ACTION): Sternocleidomastoid, Neck flexors and extensors
(PALPATION OF): Common carotid artery, External carotid artery
OTHERS: Thyroid gland, Cervical lymph nodes, (Horizontal and vertical), Midline structures in the neck

NOTE :- Level 2 and 3 mentioned in the above syllabus includes the topics " desirable to know" (level-2) and " Nice to know" (level-3. The remaining topics fall under the group " Must Know" (level-1.