VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT

MD

Radio diagnosis

Physics Related to Radiology and Imaging

(A) X-Ray :-

Production & General properties. X-Ray tube. Measurement of quantity & quality of X-Rays. Absorption & Scattering. Characteristic X-Ray & filtration. Depth dose, back scatter. Use of dosage meters. Protection against X-rays.

(B) Principles & Working :

- CT
- MRI
- USG & Colour Doppler

(C) Photography :

- Theory of photographic action & image formation.
- Developing & fixing techniques

(D) Protection against Radioactive rays

(E) Radioactivity :

Radioactive transformation. Laws of radioactive decay. Alpha, Beta & Gamma rays. Absorption co-efficient & half – value layer. Isotopes and their medical uses.

(F) Contrast Media : Types, uses, adverse reactions & their management.

Respiratory System :

1) Radiological anatomy of normal chest.
2) Methods of Examination.
3) Paediatric chest – congenital anomalies
4) Diaphragmatic & Pleural diseases
5) Pulmonary infections
6) Interstitial lung diseases
7) Tumors of lung
8) Mediastinal lesions
9) Chest trauma
10) Pulmonary diseases of unknown etiology
11) Pulmonary diseases with immunological basis

Cardiovascular System :

1) Normal appearance & anatomy
2) Radiology of pulmonary circulation.
3) Pericardium
4) Acquired heart diseases
5) Congenital heart diseases

Gastrointestinal & Biliary Systems

1) Acute Abdomen
2) Salivary gland, esophagus
3) Upper GI – Stomach, duodenum & small bowel diseases
4) Lower GI – Colonic diseases.
5) Biliary tract, Liver, Pancreas, Splenic diseases.
6) Methods of examination of GI Tract

Urogenital Systems :

1) Congenital diseases
2) Methods of examination of urinary tract.
3) Urinary tract infections
4) Calculi of kidney, ureter & bladder.
5) Tumors
6) Vascular diseases
7) Lesions of bladder & Prostate.
8) Urogenital tract diseases related to obt. & Gynaec.
9) Lower urinary tract diseases
10) Adrenal gland diseases

Central Nervous System :

1) Anatomy of normal & abnormal skull
2) Myelography
3) Head trauma
4) Brain tumors
5) Stroke
6) Diseases of spine – infective, degenerative, tumors.

ENT :

1) Pharynx and Larynx
2) Para – nasal sinuses
3) Mastoids

Eye & Orbit :

1) Trauma
2) Foreign body
3) Tumors

Bones & Joints :

1) Centers of ossification
2) Congenital Skeletal diseases
3) Skeletal trauma
4) Infective diseases
5) Tumors & tumor like lesions
6) Reticulosis and other Haemopoietic diseases
7) Haemopoietic diseases & Metabolic disorders
8) Metabolic and endocrinal disorders
9) Diseases of joints and arthrography

Dental

1) Congenital
2) Inflammatory
3) Tumours

Soft Tissue Radiology

Angiography : - Related to all systems of body

Mammography

Ultrasonography :- Principles, Medical, Surgical, Obstetrical / Gynecological, Ophthalmological, Musculoskeletal and Soft tissue conditions

Doppler Studies :- Vascular and fetal

Computerized Tomography (CT) :- Head and Whole body

Magnetic Resonance Imaging

Positron Emission Tomography (P.E.T.)

Radionuclides

Contrast Media :- Type, uses, Adverse reactions and their management.

Recent Advances in Radiology

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT.

M.D.
(Radio Diagnosis)

Method of teaching:

(a) First year:-

Candidate while working in Radiology Department will undergo training in basic medical sciences, such as Anatomy physiology, Pathology related to Radiology Radiation physics Radiobiology and statistics.

(b) For next two years he will also be working in the department of Radiology and also attend the lectures, demonstration and seminars etc.

The examination Shall Consist Of

(A) Written:-

Paper I	Radio-physics and Basic Medical Sciences related to Radiology (Diagnostic)
Paper II	Radio diagnosis I
Paper III	Radio diagnosis II
Paper IV	Allied clinical specialties and recent advances and modern trends related to radio diagnosis.

Practical examination:- Include case study & Viva-voce

Every candidate should be examination on atleast one long case two short cases 7 sport examination. There will be discussion on all aspects of diagnosis, investigations and modern trends.

Viva-voce examination will elicit knowledge about investigation procedure, modern concept of all aspects of the subject.