

Paper II: Technical Subject

I. Physics in radiology

1. Production of x-rays.
2. Interaction of x-rays with metals.
3. X-ray tube.
4. Radiation protection.
5. Basic physics and advances in fluoroscopy/ imaging intensifier.
6. Basic physics and advances in CR/DR system.
7. Basic physics and advances in CT
8. Basic physics and advances in MRI
9. Basic physics and advances in USG
10. Introduction to nuclear medicine.

II. Sectional and Imaging anatomy.

1. Cross-sectional & imaging anatomy of brain
2. Cross-sectional and imaging anatomy of chest
3. Cross-sectional and imaging anatomy of Abdomen
4. Anatomy of orbits and its bones
5. Vascular anatomy of brain/head.
6. Vascular anatomy of abdominal aorta and its branches.
7. Vascular anatomy of upper and lower limbs.
8. Relevant Embryology

III. Nervous system

1. Craniocerebral Trauma
2. Imaging of non-traumatic SAH
3. Imaging of non-traumatic ICH
4. Imaging of stroke
5. Cerebral ischemia
6. Brain tumors and tumor like processes
7. Extra-axial Tumors
8. Imaging of sellar tumours
9. Non-neoplastic and neoplastic spinal cord pathologies

IV. Head & Neck

1. Radiological imaging of diseases and conditions related to Ear, Nose, Throat
2. Radiological imaging of diseases of thyroid, salivary gland and other soft tissue neck.

V. CVS & Interventional

1. Radiological imaging of aortic and peripheral arterial diseases
2. Radiologic approach to pulmonary thromboembolism
3. Heart and pericardium

4. Congenital and acquired heart disease
5. Image guided radiological procedures and contrast media

VI. Musculoskeletal System

1. Skeletal trauma
2. Radiological imaging of bone tumors
3. Radiological imaging of large and small joints
4. Haemopoietic bone disorder
5. Osteomyelitis and septic arthritis

VII. Thoracic / respiratory system

1. Radiological imaging of Chest
2. Chest trauma

VIII. Gastrointestinal & hepatobiliary system

1. Imaging of non-neoplastic / neoplastic esophageal pathology
2. Imaging of gastric pathology
3. Liver neoplasms
4. Inflammatory bowel disease
5. Imaging and interventions in GI bleed
6. Imaging of pancreatic neoplasm

IX. Genito-urinary system

1. Renovascular disease
2. Genitourinary trauma
3. Genito-urinary tumor
4. Urinary bladder & Prostate imaging

X. Breast and diagnostic ultrasound

1. Breast imaging
2. Role of USG in IUGR
3. Diagnostic ultrasound

XI. Paediatric imaging

1. Imaging of the kidneys and urinary tract in children
2. Imaging of congenital CNS malformations
3. Respiratory Distress

XII. Recent advances in radiology and imaging

1. Teleradiology, Radiology Information System & PACS
2. Newer advances in CR/ DR system, Fluoroscopy and Mammogram
3. Newer advances in CT and MRI
