

Paper II: Technical Subject

1. Basic Science

A. Anatomy

1. Respiratory system
2. Coardiovascular system
3. Gastrointestinal system
4. Hepatobiliitary System
5. Genito urinary system
6. Skeletal System
7. Cross sectional anatomy
8. Central Nervous system

B. Radiation Physics

1. Electromagnetic radiation & its properties
2. Radiation measurement and units
3. Production and properties of X-ray
4. Interaction of Radiation with matter
5. Properties of X-ray film, film processing
6. Intensifying and fluorescent screens.
7. X-ray absorption on the radiographic image.
8. Gird & filter.
9. Principles of Fluroscopy and IIT.
10. Principle of Diagnosttic ultrasound
11. Principle of CT
12. Principle of MRI
13. Principle of Nuclear Medicine and Imaging
14. Radiation Hazards and its effects

2. Radiology

A. Cardiovascular

1. Normal heart and pericardium
2. Pulmonary circulation
3. Acquired heart diseases
4. Congenital heart diseases

B. Respiratory

1. Normal Chest
2. Tumors of the lung
3. Inflammatory diseases of the lung
4. Remaining diseases of lung, pleura and soft tissue and bony thoracic cage of chest
5. Chest Trauma
6. Chest Childereen

C. Gastrointestinal tract and abdomen

1. Diseases of Pharynx, esophagus, stomach and duodenum
2. Diseases of small bowel and large bowel Acute abdomen
3. Diseases of biliary tract
4. Diseases of Liver, spleen & pancreas

D. Urogenital Tracts

1. Congenital lesions
2. Cystic diseases of the kidney
3. Tumours of the kidney and ureter
4. Renal calculi and Nephrocalcinosis
5. Renal Vascular diseases
6. Diseases of Bladder and prostate
7. Gynaecological diseases and obstetrical study

E. Diseases related to ENT, Eye, Teeth and soft tissues

F. Central Nervous System

1. Normal and abnormal skull
2. Diseases of brain and spine
3. Congenital diseases
4. Brain and spinal tumor

G. Bone & Joints

1. Congenital skeletal anomalies
2. Diseases of bone and joints
3. Tumors and tumors like conditions of bone
4. Skeletal disorders of metabolic and endocrine diseases
5. Skeletal trauma

H. Endocrine and metabolic diseases

1. Ultrasound imaging of the whole body
2. CT Imaging of the whole body
3. MRI Imaging of the whole body
4. Radiological Procedures
 - 1) Urinary tract
 - a) IVP
 - b) MCU
 - c) RGP and RGU
 - d) Nephrotomography
 - 2) Biliary tract and pancreas
 - a) OCG

लोक सेवा आयोग
नेपाल स्वास्थ्य सेवा, रेडियोलोजी समूह रेडियोडाइग्नोसिस उपसमूह, नवौं (९) तहको खुला र आन्तरिक प्रतियोगितात्मक
परीक्षाको पाठ्यक्रम

- b) T-toube cholangiography
- c) ERCP, PTC and PTBD
- 3) GIT
 - a) Barium swallow, barium meal, barium follow through, small bowel enema, barium enema, sinogram, loopogram, fistulogram.
- 4) Reproductive system- HSG
- 5) Vascular system
 - a) Angiography
 - b) Venography
 - c) Lymphangiography
- 6) CNS- Myelography
- 7) Interventional procedures