

[LI 136] APRIL 2016

Sub. Code: 2031

M.D. DEGREE EXAMINATION

BRANCH VIII – RADIO DIAGNOSIS

**PAPER I – MEDICAL RADIATION PHYSICS AS APPLIED TO
RADIO DIAGNOSIS**

Q.P. Code :202031

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe basic physics of mammography imaging. Write about various views and interpretations in it.
2. What is sharpness in radiography? Classify unsharpness. Write about factors affecting radiographic images quality.

II. Write notes on:

(10 x 7 = 70)

1. Artifacts in CT imaging.
2. Inverse square law and its clinical application.
3. Composition of ultrasound gel and its role.
4. Physics of ultrasound elastography.
5. Evaluation of grid performance.
6. Computed Radiography.
7. Principles of MRI imaging.
8. Annihilation coincidence detection.
9. Radiology Information System (RIS).
10. Film gamma.

[LI 137]

APRIL 2016

Sub. Code: 2032

**M.D. DEGREE EXAMINATION
BRANCH VIII – RADIO DIAGNOSIS
PAPER II – RADIO DIAGNOSIS INCLUDING NUCLEAR MEDICINE**

Q.P. Code :202032

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

**(2 x 15 =
30)**

1. Discuss the various clinical presentations in acute head injury and write in detail the imaging modalities useful in their diagnosis management.
2. How will you evaluate hepatic mass lesions in adult and in children? What is the role of Nuclear medicine in management of these patients in the present era?

II. Write notes on:

(10 x 7 = 70)

1. Imaging of Endocrine skeletal disorders.
2. Radiology of tuberous sclerosis.
3. Doppler imaging in ovarian lesion.
4. Role of Isotope imaging in the assessment of GI bleed.
5. First trimester ultrasound.
6. Radiology of Congenital lung lesions.
7. Aneurysmal bone cyst diagnosis by radiography and C.T.
8. Imaging features of Prune Belly Syndrome.
9. Jaw lesions and role of imaging.
10. Thyroid ophthalmopathy Vs Orbital pseudotumor by CT and MRI findings.

[LI 138]

APRIL 2016

Sub. Code:

M.D. DEGREE EXAMINATION
BRANCH VIII – RADIO DIAGNOSIS
PAPER III – RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND
CONTRAST STUDIES

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

**(2 x 15 =
30)**

1. Discuss the radiological approach in diagnosing primary bone tumors. Write about imaging of skeletal metastasis.
2. Discuss in detail the role of plain X-ray and imaging in an adult female with acute abdomen.

II. Write notes on:

(10 x 7 = 70)

1. Optic Glioma Vs Optic meningioma by imaging findings.
2. Technique of micturating cystourethrogram in children.
3. Classify MR contrast agents and write about its adverse effects.
4. Write about CT anatomy of neck spaces.
5. Write about type II neurofibromatosis.
6. Discuss about catheters used in enteroclysis and its clinical applications.
7. Imaging features of neurosarcoidosis.
8. Islet cell tumors of pancreas and imaging difficulties.
9. Doppler evaluation of vertebral arteries.
10. Signs described in lung collapse imaging.

[LI 139]

APRIL 2016

Sub. Code: 2034

M.D. DEGREE EXAMINATION

BRANCH VIII – RADIO DIAGNOSIS

**PAPER IV – RADIO DIAGNOSIS INCLUDING INTERVENTIONAL
PROCEDURES AND RECENT ADVANCES**

Q.P. Code :202034

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

**(2 x 15 =
30)**

1. Discuss about arteriovenous malformations of brain and write in detail the radiological interventions useful in their management.
2. Discuss the basic HRCT patterns in lung and write in detail the imaging findings of interstitial lung diseases.

II. Write notes on:

(10 x 7 = 70)

1. Radiographic CVJ lines.
2. Ultrasound evaluation of a child with hydronephrosis.
3. Time intensity curve in soft tissue tumors imaging.
4. Technical descriptions on MR Angiography.
5. Intramedullary spinal cord tumors.
6. Imaging features of inflammatory bowel diseases.
7. Radiology of acute kidney infections.
8. Skeletal manifestations of neurofibromatosis type I.
9. Sonographic evaluation of developmental dysplasia of hip.
10. Techniques for CT guided interventions in Retroperitoneal tumor diagnosis.