

[LS 136]

**NOVEMBER 2020
(OCTOBER 2020 SESSION)**

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. Discuss the Biological effects of Radiations and the measures taken against its protection for Radiation workers and patients in Radio- diagnosis dept.
2. Describe the principles of acoustics applicable to ultrasound. Construction of transducers and write a note on the various ultrasonography controls

II. Write notes on:

(10 x 7 = 70)

1. AERB (Atomic energy regulatory board)Guidelines for X- ray and CT installation
2. MRI artefacts. How to rectify them in the study?
3. Half value layer 4. Anode heel effect.
5. Role of Phosphorescence in Radiology
6. PACS in radiology
7. Physical principles of PET-CT. Discuss the role of PET in post treatment evaluation of lymphoma.
8. Various views for Paranasal sinuses
9. Compare stationary and rotating anode, Describe the advantages of rotating anode.
10. MR angiography technique.

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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. Describe the various types of primary traumatic lesions in head injury. Role of CT and MRI in head injury.
2. Role of Ventilation perfusion scan in pulmonary embolism

II. Write notes on:

(10 x 7 = 70)

1. Role of isotopes in renal disease
2. Imaging in osteomyelitis
3. MR imaging features in perianal fistula
4. Imaging in Thyroglossal cyst
5. Soft tissue calcification and role of MRI in evaluation
6. BIRADS – Breast imaging and reporting system
7. Imaging in a newborn with anorectal malformation
8. Skeletal scinitigraphy
9. Imaging findings in mitral valve disease
10. Differentials for Lytic lesion of jaw

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**NOVEMBER 2020
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Sub. Code: 2033

M.D. DEGREE EXAMINATION

BRANCH VIII – RADIO DIAGNOSIS

**PAPER III – RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND
CONTRAST STUDIES**

Q.P. Code: 202033

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the instrumentation and techniques of CT enteroclysis. Proceed with interpretation in a case with inflammatory bowel disease .
2. Paediatric spinal cord tumors, differentials with key imaging features.

II. Write notes on:

(10 x 7 = 70)

1. USG contrast agents and its role in liver disease
2. Imaging in emphysematous pyelo nephritis
3. Differentials for a child with acute pain in the lower abdomen and role of imaging
4. Sonographic views and checklist in fetal echocardiography
5. Calcium scoring in CT coronary angiography
6. Imaging in unilateral opaque hemithorax
7. Doppler studies in deep vein thrombosis of the lower limb
8. Virtual bronchoscopy
9. Dose reduction in paediatric CT
10. Role of USG in ectopic pregnancy

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**NOVEMBER 2020
(OCTOBER 2020 SESSION)**

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. Elaborate in detail the causes of gastrointestinal bleeding and role of radiology in diagnosis and treatment .
2. Principle of PET CT. Role of PET in oncoimaging.

II. Write notes on:

(10 x 7 = 70)

1. BOLD imaging – its uses and limitations
2. Elastography, role in liver diseases
3. Application of diffusion imaging in abdominal MRI
4. Functional MRI in brain
5. Explain the procedure of pig tail drainage and its applications
6. MR Radiofrequency coils
7. Radiological intervention in a case of liver hydatid
8. CT perfusion and its applications
9. Intraoperative Ultrasonography
10. Neonatal Hip sonography
