

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

MAY 2022

M.D. DEGREE EXAMINATION

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

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. National and international various regulatory boards in radiology and their regulations.
2. Various MR Angiographic sequences with special reference to May Thurner syndrome.

II. Write notes on:

(10 x 7 = 70)

1. Pre Conception and pre natal Diagnostic Technique Act.
2. Detector system in Filmless technique.
3. DEXA Scan in osteoporosis.
4. Doppler physics with special notes on Renal transplant.
5. Artifacts in helical CT.
6. MRI Gradient sequences.
7. Filters in mammogram.
8. Heel effect.
9. What are the types of Grid? Write notes on Grid ratio.
10. Brief notes on photo electric effect and Compton scattering.

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M.D. DEGREE EXAMINATION

[MD 0522]

Sub. Code: 2032

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 role of nuclear imaging to assess infections in detail.
2. Discuss in detail the preoperative reporting required by neurosurgeon for various brain tumors.

II. Write notes on:

(10 x 7 = 70)

1. DOTANOC PET CT.
2. Radionuclide imaging for dementia
3. Pediatric Nuclear imaging.
4. Biases in radiology reporting.
5. Imaging of penile trauma.
6. COVID-19 Pneumonia mimics in HRCT.
7. MRCP in congenital anomalies of pancreas.
8. Cavernous sinus anatomy and lesions.
9. Grading of stress injuries of bone in MRI.
10. Temporomandibular joint (TMJ) MRI.

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

I. Elaborate on:

(2 x 15 = 30)

1. Describe skull base anatomy in detail, including the foramina. Discuss about anterior skull base lesions in detail.
2. Imaging evaluation of adnexal lesions in non pregnant female and role of MRI in them.

II. Write notes on:

(10 x 7 = 70)

1. CT Angiogram in Coronary Artery Bypass Graft Evaluation.
2. Chest MRI.
3. Neuroimaging in Acquired Immune Deficiency Syndrome (AIDS).
4. MRI Pelvis protocol for Carcinoma cervix and its role in staging.
5. Role of MRI in shoulder instability.
6. Extraconal lesions of Orbit.
7. MRI in Ligamentous injuries of Ankle.
8. Discuss about Neck space Anatomy and Classification.
9. Endometrial Doppler study.
10. Pre procedure CT evaluation of transcatheter aortic valve replacement.

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[MD 0522]

MAY 2022

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 role of interventional radiology in Head and Neck pathologies.
2. Discuss about imaging of cystic pancreatic masses in detail.

II. Write notes on:

(10 x 7 = 70)

1. Breast anatomy and variants.
2. 3D and 4D obstetric USG.
3. Types of MR Cartilage imaging
4. MR Sialogram.
5. High Frequency USG of fingers in inflammatory arthritis.
6. Carotid plaque classification and role of imaging.
7. Interventions for pain management in Oncology.
8. MRI in Stroke Mimics.
9. IgG4 related disease.
10. Variants in pediatric radiography mimicking pathology.
