April-2001

[KD 145] **Sub. Code : 2043**

M.D. DEGREE EXAMINATION.

Branch VIII — Radio Diagnosis

(Revised Regulations)

Part II — Final

Paper II — RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Enumerate the causes of haematuria. Describe the radiological approach to a case of haematuria.

2. What is Spiral CT? Discuss the principle and the components of Spiral CT. What are its advantages and disadvantages as compared to conventional CT?

3. Write briefly on :

(a) Ultrasound contrast media.

(b) Magnavist.

(c) Gardner's syndrome.

(d) Rib notching.

(e) Venous doppler.

March-2002

[KG 145] **Sub. Code : 2043**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VIII — Radiodiagnosis

Part II — Final

Paper II — RADIODIAGNOSIS INCLUDING INSTRUMENTATION CONTRAST STUDIES

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Discuss the role of imaging in a focal liver lesion. (25)

2. How will you plan a 'Department of Radiology Imaging' in a 1000 bedded speciality hospital. (25)

3. Write short notes on : (5 × 10 = 50)

   (a) Spiral CT.

   (b) Lung changes in AIDS.

   (c) Non ionic contrast media.

   (d) Perthes' disease.

   (e) Biophysical profile of fetus.

April-2003

[KI 145] **Sub. Code : 2042**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VIII — Radiodiagnosis

Part II — Final

Paper II — RADIODIAGNOSIS INCLUDING INSTRUMENTATION CONTRAST STUDIES

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Discuss the role of various imaging modalities in the diagnosis and management of blunt abdominal trauma. (25)

2. Describe the technique of Myelogram. Describe the various radiographic features of diseases in and around spinal canal. (25)

3. Short notes on : (5 × 10 = 50)

(a) Peripheral Venography

(b) CT angiography

(c) Placental sonography

(d) PTC (Percutaneous Transhepatic cholangiography)

(e) RGP (Retrograde pyelography)

[KJ 145] **Sub. Code : 2043**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VIII — Radiodiagnosis

Part II — Final

Paper II — RADIODIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Time : Three hours. Maximum : 100 marks

Theory : Two hours and forty minutes — Theory : 80 marks

M.C.Q. : Twenty minutes — M.C.Q. : 20 marks

MCQ must be answered **SEPARATELY** on the Answer Sheet provided as per the instructions on the first page.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

1. Essay question : $(2 \times 15 = 30)$

(a) Acute abdomen — role of radiology and imaging.

(b) Write about image production in Magnetic Resonance and about 2D, 3D pictures and contrast used in MRI imaging.

2. Short notes (Each 5 marks) : $(10 \times 5 = 50)$

(a) Procedure for CT guided lung biopsy.

(b) Colour Doppler evaluation of the scrotum.

(c) Procedure and indications for hypotonic duodenography.

(d) Congenital dislocation of the hip – radiological evaluation.

(e) Radiological features of bowel ischemia.

(f) Radiological evaluation of benign strictures of the oesophagus.

(g) Chest radiogram in pulmonary oedema.

(h) Evaluation of obstructive jaundice by ultrasound.

(i) Classify anatomical locations of mediastinal masses.

(j) Positioning and indications for base of skull view.

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[KM 145] **Sub. Code : 2043**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VIII — Radiodiagnosis

Part II — Final

Paper II RADIODIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Describe the various Methods involved in IMAGING OF THE SPLEEN. Elaborate on the causes of Spleenomegaly and give a detailed description of the value of splenoportography in Portal Hypertension.

(2) Describe the General Characteristics of Bone Tumours. Discuss in detail the Radiology and Imaging Characterstics of Bone tumours of Osteoid Origin.

II. Short notes : (10 × 5 = 50)

(a) Hounsfield Units.

(b) Strictures of the Small Intestine.

(c) Disorders of Thymus.

(d) Intravenous Urography in Acute Obstruction.

(e) Radiology of Renal Tuberculosis.

(f) "CARPAL INSTABILITY".

(g) Bone and Joint Changes in Bleeding disorders.

(h) Describe conditions associated with dense metaphyseal bands.

(i) High frequency X-ray generator.

(j) Radiology of Systemic Sclerosis.

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[KO 145] **Sub. Code : 2042**

M.D. DEGREE EXAMINATION.

Branch VIII — Radiodiagnosis

RADIODIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions : (2 × 15 = 30)

(1) Enumerate causes of bleeding per rectum in an adult male. Describe the procedure and interpretation of double contrast barium enema in ulcerative colitis.

(2) Discuss radiological approach to arthritis. Briefly describe the conventional radiological finding in a case of poly-articular rheumatoid arthritis.

II. Short notes : (10 × 5 = 50)

(a) Sono mammography.

(b) CT and MRI features of vertebral haemangioma.

(c) Skeletal manifestations of hyper parathyroidsm.

(d) Super conductive magnet in MRI.

(e) Three dimensional CT (3D CT) in fracture acetabulum.

(f) Positron Emission Tomography in brain imaging.

(g) Quantitative CT in osteoporosis.

(h) Antenatal diagnosis of duodenal atresia.

(i) Magnetic Resonance Spectroscopy in brain imaging.

(j) CT image artefacts.

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[KP 145] **Sub. Code : 2042**

M.D. DEGREE EXAMINATION.

Branch VIII — Radiodiagnosis

RADIODIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions :

(1) Describe the technique of spinal angiogram embolizations. (20)

(2) Describe the role of HRCT in diffuse interstitial lung disease. (15)

(3) Discuss the principle of spiral CT. What are the applications of various reconstruction methods? (15)

II. Short notes : (6 × 5 = 30)

(a) Neurofibromatosis.

(b) Aneurysmal bone cyst.

(c) Hirshprung's disease.

(d) Acute pancreatitis.

(e) Hyaline membrane disease.

(f) Neuropathic joint.

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[KQ 135] **Sub. Code : 2042**

M.D. DEGREE EXAMINATION.

Branch VIII — Radio Diagnosis

RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Common to

Part II — Final Paper II — (Old/New/Revised Regulations)

(Candidates admitted from 1988–89 onwards

And

Paper III — (For candidates admitted from 2004–2005 onwards)

Time : Three hours — Maximum : 100 marks

Theory : Two hours and forty minutes — Theory : 80 marks

M.C.Q. : Twenty minutes — M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions :

1. Compare and contrast eth Role of CT and Carotid angiography in the intracranial – supratentorial lesions. (20)

2. Mention in detail the techniques of Aortography. What are the indications and complications of Aortography. (15)

3. Renal Tuberculosis – Discuss the role of Radiology and Imaging. (15)

II. Short notes : (6 x 5 = 30)

(a) Procedure for CT guided lung biopsy

(b) Non–ionic contrast media

(c) Bladder outlet obstruction –Radiological evaluation.

(d) Radiological evaluation of benign strictures of the oesophagus.

(e) Percutaneous Transhepatic biliary drainage – procedure and indications.

(f) Write about Ultrasound contrast media.

MARCH 2008

[KS 138] **Sub. Code : 2033**

M.D.DEGREE EXAMINATION.

Branch VIII — Radio Diagnosis

RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

(Common to all Regulations)

Q.P. Code: 202033

Time : Three hours Maximum : 100 marks

Answer ALL questions.

I. Essay : (2 × 20 = 40)

1. Discuss the value of MR cholangiography in children and young adults with biliary disease.
2. How do you evaluate bone tumours with magnetic resonance imaging and correlation with surgical and gross pathological finding?

II. Short notes : (10 × 6 = 60)

1. Ultrasonography of shoulder (rotator cuff)
2. Ultrasound of musculoskeletal soft tissue mass.
3. MR and MR pancreaticorgraphy in annular pancreas.
4. Para-duodenal hernias.
5. Splenic artery aneurysms.
6. Tuberculoma.
7. Towns view.
8. Focal liver lesions.
9. Biophysical profile.
10. Thyroid scan.

March 2009

[KU 138] **Sub. Code: 2033**

M.D. DEGREE EXAMINATION

Branch VIII – RADIO DIAGNOSIS
(Candidates admitted upto 2007-2008)

Paper III – RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Q.P. Code : 202033

Time : Three hours **Maximum : 100 marks**

Draw suitable diagram wherever necessary.
Answer ALL questions.

I. Essay questions : **(2 x 20 = 40)**

1. Magnetic Resonance (MR) angiography of brain. (In children and adults).

2. Discuss sclerotic lesions of the bone in an elderly person.

II. Write short notes on : **(10 x 6 = 60)**

1. Role of ultrasound in first trimester of pregnancy.
2. Ultrasound imaging in adrenal tumors.
3. Undescended testis.
4. Eventeration of diaphragm.
5. Neurocysticercosis.
6. Skyline view.
7. Cystic diseases of the kidney.
8. Renal artery stenosis.
9. Retinoblastoma.
10. Classification of contrast media.

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March 2010

[KW 138] **Sub. Code: 2033**

M.D. DEGREE EXAMINATION

Branch VIII – RADIO DIAGNOSIS
Paper III – (for candidates admitted upto 2007-2008) and
Part II / Paper II – (for candidates admitted from 2008-2009 onwards)

RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Q.P. Code : 202033

Time : Three hours **Maximum : 100 marks**

Draw suitable diagram wherever necessary.
Answer ALL questions.

I. Essay questions : **(2 x 20 = 40)**

1. Discuss the role of radio imaging modalities in the evaluation of extra thoracic manifestations of bronchogenic carcinoma.

2. Discuss the role of radio imaging modalities in the evaluation of granulomatous pyelonephritis. How will you differentiate from non-granulomatous pyelonephritis?

II. Write short notes on : **(10 x 6 = 60)**

1. Iodism.
2. Right iliac fossa masses.
3. Terato dermoid.
4. Haematuria.
5. Role of colour Doppler in erectile dysfunction.
6. Interventional techniques in ultrasound.
7. Post operative T- tube cholangiogram.
8. Bronchial fistula.
9. Hamartoma.
10. Duplication of collecting systems.

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MAY 2011

[KY 138] **Sub. Code: 2033**

M.D. DEGREE EXAMINATION

BRANCH VIII – RADIO DIAGNOSIS

RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Q.P. Code : 202033

Time : 3 hours (180 Min) **Maximum : 100 marks**

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. What are the differentials for a male aged 55 years presenting with hemoptysis. Discuss plain radiograph and CT findings in the evaluation of Bronchogenic carcinoma.	11	35	15
2. What is the schedule for antenatal ultrasound scans? Discuss the significance of scans done in the first trimester.	11	35	15
II. Write notes on :			
1. HRCT in sarcoidosis.	4	10	7
2. Bilateral inferior rib notching.	4	10	7
3. Pulmonary venous hypertension.	4	10	7
4. Crohn’s v/s TB.	4	10	7
5. Small bowel enema.	4	10	7
6. Neonate not having passed meconium.	4	10	7
7. Image guided treatment of pelvic abscess.	4	10	7
8. MRI in female infertility.	4	10	7
9. Contrast enhanced ultrasound.	4	10	7
10. GIST.	4	10	7

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APRIL 2012

[LA 138] **Sub. Code: 2033**

M.D. DEGREE EXAMINATION

BRANCH VIII – RADIO DIAGNOSIS

RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Q.P. Code : 202033

Time : 3 hours **Maximum : 100 marks**
(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Discuss the role of HRCT in diffuse interstitial lung disease.	16	35	15
2. Enumerate causes of bleeding per rectum in adult male. Describe the procedure and interpretation of double contrast barium enema in Inflammatory bowel disease.	16	35	15
II. Write notes on :			
1. Hirschsprung disease – Barium enema findings.	4	10	7
2. Enumerate ultrasound contrast media and its role in diagnosis of focal liver lesions.	4	10	7
3. Describe procedure of T.Tube cholangiogram and its clinical application.	4	10	7
4. Vesicoureteric Reflux – Radiological findings and its clinical Significance.	4	10	7
5. Describe the physics of 3D ultrasound.	4	10	7
6. Explain with a neat sketch the technique of Axial view patella.	4	10	7
7. Biophysical profile - Tabulate and give its significance.	4	10	7
8. Write about the Barium meal findings in Malrotation & Non rotation.	4	10	7
9. Necrotising Enterocolitis – Imaging Diagnosis.	4	10	7
10. Enteroclysis – describe the procedure and its application.	4	10	7

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(LC 138) **APRIL 2013** **Sub. Code: 2033**

M.D. DEGREE EXAMINATION

BRANCH VIII –RADIO DIAGNOSIS

RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Q.P.Code: 202033

Time: Three Hours **Maximum: 100 marks**

I. Elaborate on: **(2X15=30)**

1. Discuss in detail the imaging features of bone tumours of Osteoid origin.
2. Discuss the principle of MR Cholangiography and role in imaging of CBD lesions.

II. Write notes on: **(10X7=70)**

1. Crohn's disease – describe the radiological and imaging findings.
2. Give a note on low osmolar contrast media.
3. Intussusception – Radiological and Imaging findings.
4. Write a note on Superconductive magnets in MRI.
5. MR arthrogram shoulder – explain the technique and findings in rotator cuff tear
6. Write the technique of Water's view with the help of a neat sketch.
7. Role of ultrasound in first trimester of Pregnancy.
8. Classify Internal hernias, describe findings of Paraduodenal hernias.
9. Give a note on Anorectal malformation.
10. Hiatus hernia – enumerate the types and give their findings in Barium Swallow.

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[LD 138] **OCTOBER 2013** **Sub. Code: 2033**

M.D. DEGREE EXAMINATION

BRANCH VIII – RADIO DIAGNOSIS

RADIODIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Q.P.Code: 202033

Time: Three Hours **Maximum: 100 marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss in detail the Radiological and imaging findings of Renal Cell carcinoma.
2. Role of CT and barium in Gastric malignancy.

II. Write notes on: **(10 x 7 = 70)**

1. Write a note on herpes encephalitis.
2. Give an account on Rectal lymphoma.
3. Write a note on CT cisternography.
4. Wilm's tumour – Radiological and imaging findings.
5. Write a note on Congenital coronary anomalies.
6. Describe virtual colonoscopy.
7. Achalasia Cardia – Discuss.
8. Imaging findings of Anterior mediastinal masses (Atleast 3).
9. Role of MRI in perianal fistula.
10. Give an account on sialography.

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[LE 138] **APRIL 2014** **Sub. Code: 2033**

M.D. DEGREE EXAMINATION
BRANCH VIII – RADIO DIAGNOSIS
RADIO DIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES
Q.P. Code :202033

Time : Three Hours **Maximum : 100 marks**

I. Elaborate on: **(2X15=30)**

1. Classify seller and supra sellar tumors and the imaging modalities used to diagnose them.

2. Elaborate in detail the causes of Lower Gastro intestinal Bleeding and the role of radiology and imaging in the diagnosis treatment of the same.

II. Write notes on: **(10X7=70)**

1. Imaging in Intussusception.
2. Evaluation of Spinal Cord Tumors.
3. Radiological findings in Ebstein Anomlay.
4. Imaging findings in Emphysematous Pyelonephritis.
5. Technique of Micturating Cysto Urethro gram.
6. Imaging findings in Hyaline Membrane Disease.
7. Ultra Sound and CT finding s in Acute Pancreatitis.
8. Techique and Ultrasonic Windows in Trans Cranial Doppler Sonography.
9. Aetiology and Role of Imaging in Scoliosis.
10. Imaging of Parathyroid Gland.

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[LF 138] **OCTOBER 2014** **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. Enumerate neuro cutaneous syndromes. Describe in detail the imaging features of Sturge –Weber syndrome and NF.
2. Define contrast nephropathy. Elaborate on the mechanism of contrast nephropathy and the patients at risk of developing it. Describe the key recommendations to prevent it

II. Write notes on: **(10 x 7 = 70)**

1. Tethered cord-significance and imaging.
2. Preoperative imaging for cochlear implantation.
3. USG in retinal and choroidal detachment.
4. Technical details of MR venogram
5. Neonatal neurosonography
6. Pre operative CT evaluation of potential donors in living donor liver transplantation
7. Briefly discuss imaging of pre sacral masses in children
8. Bone marrow lesions- diagnostic approach
9. MR imaging of hypoxic-ischemic injury in term neonates
10. Conventional vs CT Urography

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[LG 138] **APRIL 2015** **Sub. Code: 2033**

M.D. DEGREE EXAMINATION

BRANCH VIII – RADIO DIAGNOSIS

PAPER III – RADIODIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Q.P.Code: 202033

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 15 = 30)**

1. Describe the general approach in diagnosing intracranial tumors. Discuss about imaging of pediatric brain tumors.
2. Discuss the causes of portal hypertension. Write in detail about Sonographic evaluation of cirrhosis and portal hypertension.

II. Write notes on: **(10 x 7 = 70)**

1. Doppler evaluation of lower limb veins.
2. Imaging of adrenal incidentaloma.
3. Barium techniques in Hirschsprung disease.
4. CNS manifestations in HIV.
5. Diffusion-Perfusion mismatch.
6. Lung manifestations in connective tissue disorders and role of HRCT.
7. Radiology of Non accidental injuries.
8. Causes and evaluation of Sacroiliitis.
9. Antenatal diagnosis of Down’s syndrome.
10. Causes and imaging features of progressive massive fibrosis.

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[LH 138] **OCTOBER 2015** **Sub. Code: 2033**

M.D. DEGREE EXAMINATION

BRANCH VIII – RADIO DIAGNOSIS

PAPER III – RADIODIAGNOSIS INCLUDING INSTRUMENTATION AND CONTRAST STUDIES

Q.P. Code: 202033

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 15 = 30)**

1. Describe the MR anatomy of the knee joint. Briefly state the MR sequences you would employ to delineate a suspected medial meniscus tear.
2. Imaging protocol of HRCT temporal bone. Discuss the causes of pulsatile tinnitus with imaging features.

II. Write notes on: **(10 x 7 = 70)**

1. Differential diagnosis of Solitary pulmonary nodule.
2. Sonography of Portal Hypertension.
3. Radiological features of Giant Cell tumour of bone and its differential diagnosis.
4. Radiological evaluation of female infertility.
5. Chest radiograph in an immune compromised patient.
6. Types of fracture of maxilla and their imaging features.
7. Anatomic variants of the gall bladder, biliary tract and hepatic artery.
8. Dandy-Walker malformation.
9. Radiological findings and differential diagnosis of Gastrointestinal stromal tumour.
10. Defecogram.

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[LI 138] APRIL 2016 **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. 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 it 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.

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[LJ 138] OCTOBER 2016 **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. Mention the various types of cranio-vertebral junction anomalies. Describe the multi-modality radiological approach towards the diagnosis. Write a note on the various 'lines' and measurements used in assessing the C-V junction.

2. Write about the various MRI sequences and special techniques used in evaluating the shoulder joint. Describe the various types of labral tears and their imaging findings.

II. Write notes on: **(10 x 7 = 70)**

1. Asbestos related lung disease – Imaging features.
2. Modified CT Severity index of Pancreatitis.
3. Imaging of undescended testis.
4. MRI findings in multiple sclerosis.
5. Liver specific MR contrast agents.
6. Orbital pseudotumor – types and imaging features.
7. Imaging features of hepatoblastoma.
8. Sono Elastography – Principle and applications.
9. Fetal bio-physical profile.
10. Bone densitometry.

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[LK 138] MAY 2017 **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. Write in detail about MRI Contrast media.
2. Imaging of ovarian tumors.

II. Write notes on: **(10 x 7 = 70)**

1. Ultrasound Contrast Media.
2. Sonosalpingography.
3. Contrast reaction and management.
4. Lipiodol.
5. Ultrasound of placenta.
6. Angiographic catheters.
7. Imaging of posterior mediastinal tumor.
8. Principle of HRCT.
9. Imaging in renal hypertention.
10. Embolic agents.

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[LL 138] OCTOBER 2017 **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. Discuss the MR spectroscopy and it's application in Brain.

2. Describe the radiological anatomy of prostate gland. What are the various imaging strategies used for diagnosis, staging and follow-up of prostatic malignancy?

II. Write notes on: **(10 x 7 = 70)**

1. Role CT angiography in Renal Donors.
2. Indications for cardiac MRI.
3. Radiological signs of pneumoperitoneum.
4. Imaging features of acute pyelonephritis.
5. Virtual bronchoscopy.
6. Management of a severe contrast reaction.
7. Differential diagnosis of pleura and vertebro plasty.
8. Imaging features of hypertrophic pyloric stenosis.
9. Technique and significance of nuchal translucency screening.
10. CT enteroclysis technique.

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[LM 138] MAY 2018 **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. Write an essay about Radiographic Contrast Media and management of contrast reactions.
2. Imaging of cystic tumors of liver.

II. Write notes on: **(10 x 7 = 70)**

1. Imaging of small bowel tumors.
2. Sonoencephalogram.
3. Obstetric Doppler.
4. MR Fistulogram.
5. Breast tomosynthesis.
6. Intraoperative ultrasound.
7. Role of MRI in Placenta imaging.
8. Vascular stents.
9. Seldinger technique.
10. Various presentations of pulmonary tuberculosis.

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[LN 138] OCTOBER 2018 **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 radiological anatomy of mediastinum. Write about posterior mediastinal lesions.
2. Brief the various breast imaging modalities and write in detail about the role of MR mammography in diagnosis of different breast lesions.

II. Write notes on: **(10 x 7 = 70)**

1. Sclerosing skeletal dysplasia.
2. Posterior fossa cystic lesions.
3. The procedure and its clinical implications of double contrast barium enema.
4. Techniques for image guided vertebral biopsy.
5. Doppler evaluation of IUGR.
6. Imaging features of juvenile idiopathic arthritis.
7. Embryology of pancreas and its congenital anomalies.
8. Techniques of routine contrast C.T. of abdomen in adult and children.
9. Radiology of Juxtacortical osteosarcomas.
10. Imaging of anorectal malformations.

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[LO 138] MAY 2019 **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. Discuss pathophysiology and imaging findings in newborn respiratory distress.

2. Briefly describe the anatomy of the retroperitoneum and imaging differentials of retroperitoneal masses in childhood.

II. Write notes on: **(10 x 7 = 70)**

1. Enumerate the various causes of first trimester bleeding and describe in brief the sonographic features.
2. Total Anomalous Pulmonary Venous Connection (TAPVC).
3. Craniosynostosis.
4. Imaging in neurofibromatosis.
5. Imaging features in mucopolysaccharoidosis.
6. Tracheoesophageal fistula.
7. Contrast induced nephrotoxicity.
8. Pre-cochlear implant temporal bone imaging.
9. Role of imaging in testicular torsion.
10. Evaluation of cystic renal disease in infants.

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[LP 138] OCTOBER 2019 **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. Discuss the differentials and imaging findings of hypervascular liver lesions. Include a note on CT and MRI protocol.

2. Pediatric intracranial tumours; differentials with key imaging findings. Add a note on MRI protocol in a child with medulloblastoma.

II. Write notes on: **(10 x 7 = 70)**

1. Gadolinium deposition in brain.
2. Pituitary microadenoma.
3. Cystic renal lesions in a child.
4. MRI shoulder in labral injuries.
5. Leukodystrophies with Macrocephaly.
6. Imaging findings in male infertility.
7. Protocol, patient preparation for CT Coronary angiogram.
8. Contrast enhanced ultrasound; indications and technique.
9. Ring-enhancing lesions in an immunocompetent adult.
10. MRI evaluation of Ca Rectum.

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[LQ 138] AUGUST 2020 **Sub. Code: 2033**

(MAY 2020 SESSION)

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. Imaging approach and protocols for bilateral adrenal lesions.

2. Classify osteosarcoma . Describe in detail about the central type of osteosarcoma

II. Write notes on: **(10 x 7 = 70)**

1. Emergency drugs that should be available in the radiology department and their uses along with dosage
2. Technique and interpretation in defaecogram
3. Technique and instrumentation in Transcranial doppler studies
4. Role of radiology in abdominal trauma in a road traffic accident person
5. Thyroid scintigraphy
6. How do you approach a case of solitary collapsed vertebra in a old aged female ?
7. Imaging in neuroendocrine tumors of pancreas
8. Draw a well labeled diagram of craniovertebral junction and enumerate the junction anomalies
9. Twin to twin transfusion syndrome
10. Bone marrow edema around knee and their causes. What are the MRI findings?

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[LS 138] NOVEMBER 2020 **Sub. Code: 2033**

(OCTOBER 2020 SESSION)

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 bronchoscophy
9. Dose reduction in paediatric CT
10. Role of USG in ectopic pregnancy

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[MD 0721] JULY 2021 **Sub. Code: 2033**

(MAY 2021 SESSION)

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. Discuss about orbital tumors and imaging approach and role of CT and MRI.
2. Describe the normal anatomy of coronary arteries and discuss the role of MDCT in coronary artery disease.

II. Write notes on: **(10 x 7 = 70)**

1. Differentiate diagnosis of ground glass opacities.
2. Sialography.
3. Write imaging findings of the following :
   a) Bronchial carcinoid b) Boop c) Meleod's syndrome.
4. MR in evaluation of pericardium and its pathologies.
5. IG G4 related diseases imaging.
6. Paraneo-plastic syndrome.
7. Conventional X-ray imaging features of mitral heart disease.
8. Ba enema techniques and applications.
9. MRCP ductal variants.
10. Renal hypertension.

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

[MD 1121] NOVEMBER 2021 **Sub. Code: 2033**

(OCTOBER 2021 SESSION)

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. Imaging protocol of HRCT temporal bone and MRI pre and post cochlear transplant imaging.

2. A 20 year old female with history of fever showed an anterior mediastinal and right hilar mass on chest radiograph. Enumerate the causes. Discuss the radiological finding which shall help you in formulating your differential diagnosis. Describe in brief features which are useful in differentiating Hodgkin's disease and non-Hodgkin's lymphoma.

II. Write notes on: **(10 x 7 = 70)**

1. Defecogram.
2. Describe the radiological anatomy of diaphragm. Enumerate various types of diaphragmatic hernias. Discuss the imaging findings.
3. Imaging in Covid – 19.
4. Acute aortic syndrome.
5. Imaging of swollen lower limb.
6. Nephrocalcinosis.
7. Signs in ectopic pregnancy.
8. Imaging in Pulmonary embolism.
9. Renal hypertension.
10. Linear versus macro cyclic MR contrast agents.

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

[MD 0522] **MAY 2022** **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 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 Sydrome (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 value replacement.

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

[MD 0723] JULY 2023 Sub. Code: 2033

(MAY 2023 EXAM SESSION)

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. Classify various types of MRI Contrast agents and discuss about them in detail.

2. Discuss in detail the role of CT and MRI in Pre and Post operative evaluation of cochlear implantation.

II. Write notes on: **(10 x 7 = 70)**

1. Solitary lytic lesion of skull.
2. Cardiac MRI planning and views.
3. Orthopaedic hardware MRI imaging and safety measures.
4. Aortic endoleaks.
5. Whole body muscle MRI.
6. Pediatric USG in Child with vomiting.
7. HRCT in small airway disease.
8. Female perineal USG.
9. Sonohysterosalpingogram.
10. CT Angiogram for Coronary plaque evaluation.

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

[MD 1223] DECEMBER 2023 Sub. Code: 2033
(OCTOBER 2023 EXAM SESSION)

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. Mention HRCT patterns in Interstitial Lung Disease with special reference to Occupational Lung Diseases.

2. Describe about imaging of spinal cord lesions and role in MR – DTI in Spinal Cord Tumors.

II. Write notes on: **(10 x 7 = 70)**

1. Imaging features of Genito Urinary Tuberculosis.
2. a) Black Pleura sign b) Spine sign c) Luftsichel sign.
3. Spetzler- Martin Score.
4. Lunate and Perilunate dislocation.
5. Nuchal Translucency Scan.
6. Vanishing Twin.
7. Grading of Sialogram.
8. Enumerate various Cadiomyopathies and their imaging.
9. USG Contrast.
10. Angiodysplasia of colon.

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