

**DNB QUESTION PAPERS
RADIO-DIAGNOSIS**

JUNE – 1991

B/RDG/F/I/91 (i)

FINAL PAPER - I

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Write an essay on Renal Failure with special reference to radiological and imaging procedures. 25
2. Briefly describe the following: 5 X 15 = 75
 - a. Interventional procedures in Vascular Radiology
 - b. Radiology of AIDS.
 - c. Digital Subtraction Angiography
 - d. Lung changes in Mitral Stenosis
 - e. Radiological evaluation of Post Operative Chest.

B/RDG/F/II/91 (i)

FINAL PAPER - II

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Describe the technique and appearances of Double Contrast Study of the upper G.I. tract. Compare and contrast it with conventional single contrast technique and endoscopy. Discuss the merits and demerits of the technique. 25
2. Briefly describe the following: 5 X 15 = 75
 - a. Spinal Tuberculosis
 - b. Multiple Myeloma
 - c. Neurocysticercosis
 - d. Acoustic Neuroma
 - e. Hiatus Henia

JUNE – 1991

B/RDG/F/III/91 (i)

FINAL PAPER - III

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Describe various radiological features of Bronchial Carcinoma enumerate systemic manifestations of bronchial carcinoma and role of imaging in diagnosing them. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Causes and differential diagnosis of calcification in the Brain.
 - b. Various syndromes associated with Intestinal Polyposis.
 - c. Causes and differential diagnosis of absorption of tips of terminal Phalanges.
 - d. Nephrocal Cinosis
 - e. Radiology of Painful Shoulder.

B/RDG/F/IV/91 (i)

FINAL PAPER - IV

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

Briefly describe the following: 10 X 10 = 100

1. Anatomy of Cerebral Ventricles
2. Embryology of the urinary tract.
3. Anomalous venous drainage.
4. Causes of Obstructive Jaundice.
5. Physical principle of C.T. scan.
6. Rectification of an X-Ray tube.
7. Non-screen films.
8. Half value layer.
9. Film badge service.
10. Biochemical changes in Hyperparathyroidism.

DECEMBER – 1991

B/RDG/F/I/91 (ii)

FINAL PAPER - I

Time : 3 hours Marks - 100
ANSWER ALL QUESTIONS

1. What are different MEDIASTINAL MASSES? What is the contribution of Radiology and imaging in their diagnosis? 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Pulsed Doppler ECHOCARDIOGRAPHY in MITRAL STENOSIS
 - b. PHARMACO-ANGIOGRAPHY.
 - c. Sonographic findings in BENIGN SPACE OCCUPYING LESIONS OF KIDNEYS.
 - d. Contribution of radiology in management of SYSTEMIC HYPERTENSION.
 - e. Radiological findings in CHRONIC BRONCHITIS.

B/RDG/F/II/91 (ii)

FINAL PAPER - II

Time : 3 hours Marks - 100
ANSWER ALL QUESTIONS

1. Classify ABDOMINAL TUBERCULOSIS and discuss the various imaging modalities and their appearances that would lead to a diagnosis of the condition. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. ATLANTO-AXIAL DISLOCATION.
 - b. METASTATIC OSSEOUS DISEASE
 - c. CT IN NEUROTUBERCULOSIS.
 - d. LUMBAR DISC PROLAPSE.
 - e. BENIGN GASTRIC TUMOURS

DECEMBER – 1991

B/RDG/F/III/91 (ii)

FINAL PAPER - III

Time : 3 hours Marks - 100
ANSWER ALL QUESTIONS

1. Discuss various radiological findings in PITUITARY DISEASE as seen in: Plain films, CT and MRI

2. Briefly describe the following: 5 X 15 = 75
 - a. PULMONARY SARCOIDOSIS
 - b. PREMALIGNANT conditions of G.I. tract.
 - c. Imaging of BREAST.
 - d. ACUTE ABDOMEN in Pediatric age group.
 - e. Radiological features of HYPERPARATHYROIDISM.

B/RDG/F/IV/91 (ii)

FINAL PAPER - IV

Time : 3 hours Marks - 100
ANSWER ALL QUESTIONS

1. What are the harmful effects of IONISING RADIATION? Describe the steps which can be taken to protect the patients in diagnostic radiology department. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. LIGHT BEAM DIAPHRAGM.
 - b. Anatomy of INTRACRANIAL VASCULAR CIRCULATION.
 - c. Pathology of CHRONIC PYELONEPHRITIS.
 - d. Physical principle of IMAGE INTENSIFIERS.
 - e. Uses of ISOTOPES in THYROID DISORDERS.

JUNE 1992

B/RDG/F/1/92 (i)

FINAL PAPER - I

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss the role of X-ray chest in the diagnosis of PULMONARY HYPERTENSION. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. LYMPHANGITIS CARCINOMATOSA.
 - b. Differential diagnosis and role of IMAGING in POSTERIOR MEDIASTINAL MASSES.
 - c. Role of C.T. in imaging RENAL TUMORS.
 - d. TRANSVAGINAL ULTRASONOGRAPHY
 - e. DEEP VEIN THROMBOSIS of legs.

B/RDG/F/11/92 (i)

FINAL PAPER - II

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss the radiological features of DUODENAL ULCERS. Discuss Double contrast Barium meal study in the diagnosis of duodenal ulcers. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. FLUOROSIS
 - b. C.T. in VERTEBRAL TRAUMA
 - c. Intra cranial TUBERCULOMA
 - d. Double contrast study of the CAECUM & COLON PATHOLOGY.
 - e. INTRACRANIAL (SUPRATENTORIAL) GLIOMA

JUNE 1992

B/RDG/F/III/92 (i)

FINAL PAPER - III

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Describe the IMAGING TECHNIQUES and diagnostic criteria of ROTATOR CUFF TEARS. 25

2. Brief short notes on the following. 5 X 15 = 75
 - a. Evaluation of THYROID NODULE.
 - b. Fine needle aspiration biopsy of LUNG LESIONS.
 - c. Radiology information systems.
 - d. Anatomy and lesions of PARAPHARYNGEAL SPACE.
 - e. Gd-DTPA.

B/RDG/F/IV/92 (i)

FINAL PAPER - IV

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. What do you understand by the terms 'Primary' and 'Secondary' RADIATION? What are the harmful effects of secondary radiation on the quality of radiograph? Describe the measures to improve the quality. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Pathophysiology of HYDROCEPHALUS.
 - b. Isotope imaging in RENAL DISEASES.
 - c. Focal point of X-RAY TUBE.
 - d. PHOSPHORS used in INTENSIFYING SCREENS.
 - e. Radiological anatomy of LARYNX and PHARYNX.

December 1992

B/RDG/F/I/92 (ii)

FINAL PAPER - I

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss the role of plain X-ray chest in the diagnosis of congenital heart disease. 25

2. Briefly describe the following: 3 X 15 = 45
 - a. Sequestered lung.
 - b. Differential diagnosis and role of imaging in solitary coin lesion of the lung.
 - c. Broncho pulmonary Fistula
 - d. Role of C.T. in imaging renal infection.
 - e. Transrectal ultrasonography

B/RDG/F/II/92 (ii)

FINAL PAPER - II

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Describe imaging appearance of various of INTRA CRANIAL neoplasms in the supratentorial compartment. Compare these with the cerebral angiographic features stressing the merits and demerits of both. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Ulcerative colitis.
 - b. Glycogen storage diseases.
 - c. Osteogenic sarcoma.
 - d. Intracranial meningiomas.
 - e. Myelogram in spiral tumours.

June 1994

B/RDG/F/I/94 (i)

FINAL PAPER - I

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Describe the anatomy of Diaphragm and its normal variants. Discuss the causes and plain X-ray findings in evaluation of unilateral elevation of Diaphragm. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Imaging in Diagnosis and staging of urinary Bladder malignancy.
 - b. Broncho Pulmonary Aspergillosis.
 - c. Differential diagnosis of intra Pulmonary calcification.
 - d. Total Anomalous Pulmonary venous drainage.
 - e. HRCT in Interstitial Lung diseases.

B/RDG/F/II/94 (i)

FINAL PAPER - II

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Briefly discuss imaging of following: 2 X 18 = 36
 - a. Suspected sellar lesion.
 - b. Suspected C.P. Angle tumour.
 - c.
2. Briefly describe the following: 2 X 18 = 36
 - a. Primary GI lymphoma.
 - b. Diagnosis of intra-abdominal fluid collections.
3. Discuss the imaging and radiological findings in hyperthyroidism. 28

June 1994

B/RDG/F/III/94 (i)

FINAL PAPER - III

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Child with urinary tract infection. Provide a protocol for imaging and mention their features. 25

2. Briefly describe the following 5 X 15 = 75
 - a. Alkaptonuria
 - b. Appendicitis
 - c. Peutz jegher Syndrome
 - d. Papillary necrosis
 - e. Gadolinium D.T.P.A.

B/RDG/F/IV/94 (i)

FINAL PAPER - IV

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Briefly describe the following: 10 X 10 = 100
 - a. Pathology of caseating granulomatous lesions
 - b. Pathology of pulmonary hamartoma
 - c. Blood brain barrier.
 - d. Transducers used for cranial Sonography
 - e. Radiation carcinogenesis
 - f. Stationary x-ray grids.
 - g. Dark room safe lights
 - h. Isotopes in bone imaging
 - i. Imaging methods for evaluation of imperforate anus
 - j. Broncho-pulmonary segments (anatomy)

December 1994

B/RDG/F/I/94 (ii)

FINAL PAPER - I

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Briefly describe conventional and modified IVP. Discuss its finding in Chronic Renal Infection and Chronic Renal failure. 25

2. Briefly describe the following 5 X 15 = 75
 - a. Imaging in Renal transplant.
 - b. Imaging of Ectopic pregnancy.
 - c. Metastatic lung lesions.
 - d. CT in Myasthania Gravis.
 - e. Imaging in diseases of the aorta.

B/RDG/F/II/94 (ii)

FINAL PAPER - II

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Discuss radiological findings in the following conditions: 12 X 3 = 36
 - a. Meningioma
 - b. Cerebral lymphoma
 - c. Syringomyelia

2. Briefly describe the following 12 X 3 = 36
 - a. Role of CT in G.I. Malignancies
 - b. Imaging of pancreatitis
 - c. Intestinal Tuberculosis

3. Discuss radiological findings of the following: 14 X 2 = 28
 - a. Cushing syndrome
 - b. Rickets

December 1994

B/RDG/F/III/94 (ii)

FINAL PAPER - III

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Multiple filling defects in the small bowel detected in barium examination. Give radiological differential diagnosis and briefly mention their features.25

2. Briefly describe the following 5 X 15 = 75
 - a. Subarticular bone erosions
 - b. Marfans syndrome.
 - c. Polycystic disease kidneys.
 - d. Gadolinium DTPA.
 - e. Local pleural masses.

B/RDG/F/IV/94 (ii)

FINAL PAPER - IV

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Briefly describe the following 10 X 10 = 100
 - a. Pathology of Ulcerative colitis
 - b. Doppler principle
 - c. Emission computed tomography
 - d. Pathology of thyroid carcinoma
 - e. High KV technique for chest radiography.
 - f. Isotope in bone imaging.
 - g. Role of Sonography in abdominal tuberculosis
 - h. Radiology of Atlanto-axial dislocation.
 - i. Imaging in acute abdomen.

December 1995

B/RDG/F/I/95 (ii)

FINAL PAPER - I

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Describe the pathology and radiological findings in Adult Respiratory Distress Syndrome (ARDS) 25
2. Enumerate the adnexal masses and indicate the imaging choices and mention the advantages of Endovaginal Gray Scale Sonography. 15
3. Briefly discuss the differentiating features of intra and extra lobar sequestrations of lung. 15
4. Briefly, mention the various causes of unilateral large kidney with I.V.P. features of each 15
5. Briefly describe "Fungus Ball" and mention the differential diagnosis. 15
6. Briefly outline th3 causes and radiographic features of left atrial enlargement. 15

B/RDG/F/II/95 (ii)

FINAL PAPER - II

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

Briefly describe the following: - 10 X 10 =100

1. Chronology of CT changes in Brain Infracctions.
2. Extradural spinal lesions- causes and imaging.
3. Causes and imaging protocol in Acute Paraplegia.
4. Syndromes with G.I. tract polyposis.
5. Usefulness of Sonography in Intestinal Lesions.
6. Radiology of acute and subacute obstructive lesions of G.I. tract.
7. Types of periosteal elevations and differentiating features.
8. Enumerate epiphyseal lesions with differential features of each.
9. Single collapsed vertebra - causes and differentiating features.
10. Precautions during Radiological procedures in HIV positive cases.

December 1995

B/RDG/F/III/95 (ii)

FINAL PAPER - III

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Patient presented to you with unilateral PROPRISIS. Discuss the differential diagnosis and describe briefly the radiological features. 25

2. Briefly describe the following: - 5 X 15 = 75
 - a. Role of Radionuclide examinations in Reno-Vascular Hypertension.
 - b. Radio-isotope imaging of hepatobiliary diseases.
 - c. Pulmonary embolism - Evaluation by radiology ad radio isotope.
 - d. Ultrasonographic evaluation of peripheral arterial diseases.
 - e. Molar pregnancy.

B/RDG/F/IV/95 (ii)

FINAL PAPER - IV

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

Briefly describe the following: - 10 X 10 =100

1. Factors affecting image quality in Computed Tomography.
2. Factors affecting Scatter Radiation and methods for reducing scatter Radiation.
3. Phosphors used in intensifying screen.
4. Basic principles of Digital Subtraction Angiography.
5. Radiation protection.
6. What are the different types of Sonographic transducers? Discuss advantages and disadvantages of different transducers.
7. Etiopathology of Bronchogenic Carcinoma.
8. Pathological anatomy of Tetralogy of Fallot.
9. Trachero-oesophageal developmental anomalies.
10. Enumerate pre-malignant conditions of Gastro-intestinal tract. Describe radiological features of chronic ulcerative colitis.

JAN 1997

PAPER – II

TIME: 3 HOURS

RDG/F/II/2007/2

Max. Marks: 100

Attempt all questions in order.

Each question carries 10 marks.

Write short notes on:

1. Radiological features of gastric lymphoma.
2. MR enteroclysis – techniques and applications
3. Colonic strictures – etiology and role of imaging in diagnosis of structures.
4. Doppler in hepatic cirrhosis.
5. Radiological features in diffuse axonal injury.
6. Imaging in unilateral exophthalmos.
7. Central pontine myelinolysis.
8. Osseous spectrum in neurofibromatosis.
9. Sero negative spondyloarthropathy.
10. Differential diagnosis of radiological appearance of absorption of terminal phalanges.

December 1997

B/RDG/F/I/97 (ii)

FINAL PAPER - I

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss in brief the differential diagnosis of mediastinal masses and their radiological appearances. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Role of plain skiagram chest in the diagnosis of pulmonary Hypertension
 - b. Posterior urethral valve.
 - c. Schimmittar syndrome
 - d. Role of imaging in Bronchogenic carcinoma
 - e. Pheochromocytoma.

FINAL PAPER - II

B/RDG/F/II/97 (ii)

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Describe in brief the pathology, role of imaging and radiological features in gastrointestinal tract lymphomas. 25

2. Briefly describe the following : 5 X 15 = 75
 - a. Radiological features of spinal tuberculosis
 - b. Radiological features of congenital syphilis
 - c. Arnold-Chiari malformations
 - d. Ring lesions on computed tomography of brain
 - e. Necrotising enterocolitis

December 1997

B/RDG/F/III/97 (ii)

FINAL PAPER - III

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss the role of imaging in uterine lesions. 25

2. Write short notes on: 5 X 15 = 75
 - a. Radio isotopes in thyroid disease.
 - b. MR angiography
 - c. Neuropathic joints
 - d. Epispadias extrophy complex
 - e. Neurosonography.

B/RDG/F/IV/97 (ii)

FINAL PAPER - IV

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Briefly describe the following: 10 X 10 = 100
 - a. Basic construction of an x-ray tube and recent advances.
 - b. Factors affecting quality of radiograph.
 - c. Low osmolar media.
 - d. High resolution CT and its major applications.
 - e. MR Spectroscopy.
 - f. Radionuclide imaging of urinary tract.
 - g. Automatic processing.
 - h. Pathogenesis of atrial septal defects.
 - i. Segmental anatomy of liver and its importance.

JANUARY 1998

PAPER – 1

1. Describe the role of imaging techniques in the evaluation of female infertility.
2. Briefly describe the following :
 - a. Lung lesions in AIDS.
 - b. Aortic aneurysms.
 - c. Renal tuberculosis.
 - d. Amyloid heart disease.
 - e. Pulmonary alveolar proteinosis.

PAPER – II

1. How will you radiologically investigate a suspected case of ulcerative colitis ? Discuss briefly its etiopathology also.
2. Briefly describe the following :
 - a. Radiological features of osteosarcoma.
 - b. Differential diagnosis of generalized decreased density of bone.
 - c. Role of radiology and imaging in acoustic neurinoma.
 - d. Imaging in laryngeal tumours.
 - e. CT in cerebral stroke.

JANUARY 1998

PAPER – III

1. How will you investigate a patient with portal hypertension? Discuss the role of radiological in its management.

2. Write short notes on :
 - a. Interventions in urinary tract.
 - b. Vascular complications of pancreatitis.
 - c. Scintigraphy in pulmonary embolism.
 - d. CT versus MRI in intervertebral disc prolapse.
 - e. MRI in avascular necrosis of hip.

PAPER – IV

Briefly answer the following :

1. Methods for evaluation of Grid performance.
2. Embryological Development of the Heart.
3. Cross-Sectional labeled diagram of peritoneal spaces at level of porta-hepatis.
4. Role of ultra-sonic Contrast Agents in Hepatic Diseases.
5. Technical Principles for Mammography Equipment.
6. Intra cavitary sonography.
7. Hyper Secretion Disorders of Supra Renals – Enumerate and discuss the role of CT in any one of them.
8. Value of Plain Skiagram of Hand in Hyper-parathyroidism. Acromegaly, Spina Ventosa, Scleroderma, Psoriatic arthography.
9. Lymphatic drainage of lungs and role of Plain x-ray in diagnosing Pulmonary Oedema.
10. Etio-pathogenesis of gout and diagnostic features on plain X-ray of feet.

December 1998

B/RDG/F/I/98 (ii)

FINAL PAPER - I

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss the pathology of renal hypertension and radiological investigations for the same. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Pleural tumours
 - b. Diagnosis of pulmonary infraction
 - c. A.S.D.
 - d. Atrial myxoma
 - e. Endometriosis

B/RDG/F/II/98 (ii)

FINAL PAPER - II

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss the role of computed tomography in infective lesions of brain. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Differential diagnosis of expanding lesions in metaphysis of long bones.
 - b. Cleido-cranial dysostosis
 - c. Differential diagnosis or mass in right iliac fossa.
 - d. Ultrasonography features in cirrhosis liver with portal hypertension
 - e. Radiological diagnosis of extra-dural spinal masses.

December 1998

B/RDG/F/III/98 (ii)

FINAL PAPER – III

Write short notes on : 10 X 10 = 100

1. Imaging of the extracranial carotid arteries
2. 3 D CT angiography
3. CT versus MRI in stroke
4. Isotopes in Myocardial ischaemia
5. Pancoast tumour
6. Lymphoma of the bowel
7. Choledochal cysts
8. Spinal tuberculosis
9. Hypertrophic pulmonary osteoarthropathy
10. Endocrine tumours of the pancreas.

B/RDG/F/IV/98 (ii)

FINAL PAPER – IV

Briefly describe the following : 10 X 10 = 100

1. Role of Ultrasound Contrast Agents in Gastro-intestinal diseases.
2. Enumerate the causes of Osteoporosis and use of CT in Bone Mineral studies.
3. Name the various interactions of x-ray photons with matter. Describe any two.
4. Pathology of renal neoplasms in the paediatric age group
5. Cross - Sectional labelled diagram of Peritoneal Spaces at level of renal hila
6. ^{99m}Tc labelled N - Substituted Imino-diacetic acid (HIDA) Scan.
7. Cross Sectional Anatomy of Supra Renal level. Enumerate the hormones elaborated by zones of the Supra renal glands.
8. Anatomy of Maxillary sinus and classification of various pathologic diseases
9. Pathogenesis and classification of Dissecting Aneurysm of Aorta.
10. Anatomical boundaries of anterior mediastinum-Role of CT in detection and diagnosis of anterior Mediastinal Masses.

JULY – 1999

PAPER – 1

1. Describe the role of CT in acute abdomen.

2. Briefly describe the following:
 - a. Pulmonary oedema.
 - b. Acute scrotum.
 - c. Coarctation of aorta.
 - d. Ectopic Pregnancy.
 - e. Imaging of posterior mediastinal masses.

PAPER – II

1. Enumerate the various neuro-cutaneous syndrome and describe imaging in any two of these.
2. Write short notes on :
 - a. Differential diagnosis of metaphyseal lucent ----
 - b. Superior mesenteric artery syndrome.
 - c. Sonographic findings in abdominal tuberculosis.
 - d. Alimentary tract lesions diagnosable in-utero
 - e. Renal osteodystrophy.

PAPER – III

1. Enumerate various investigative modalities for the transplanted kidney and give the normal findings in each of them.
2. Write short notes on the following :
 - a. C.T. versus M.R.I. in brain tumours.
 - b. Role of imaging in obstructive jaundice.
 - c. Role of sonography in I.U.G.R.
 - d. Role of doppler study in lowest extremity arterial disease.
 - e. Role of scintigraphy in liver diseases.

PAPER – IV

Write short notes on :

1. Focal spot in a diagnostic x-ray tube.
2. Digital radiography.
3. Radiological anatomy of sella turcia and imaging features of suprasellar masses.
4. Hypertrophic pulmonary osteoarthropathy.
5. MRCP.
6. Carcinoid tumours.
7. Retroperitoneal fibrosis.
8. Cystic diseases of the kidney.
9. Adult Respiratory Distress Syndrome (ARDS).
10. Sarcoidosis.

December 1999

B/RDG/F/I/99 (i)

FINAL PAPER – I

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Describe radiological and imaging features of malignant renal tumours. 25

2. Write short notes on: 5 X 15 = 75
 - a. Normal and abnormal renal patterns as seen on ultrasound imaging.
 - b. Asbestosis
 - c. Determination of Atrial situs.
 - d. Inflammatory diseases of lungs due to non-acquired type of impaired defence mechanisms
 - e. Pulmonary venous hypertension.

B/RDG/F/II/99 (i)

FINAL PAPER – II

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Describe in brief pathology, radiological and imaging features of gastric malignancies. 25

2. Write short notes on : 5 X 15 = 75
 - a. Carotico- Cavernous fistula (CCF)
 - b. Double contrast Barium Enema (DCBE)
 - c. Imaging in Acute pancreatitis.
 - d. Neurofibromatosis
 - e. Aneurysmal bone cyst.

December 1999

B/RDG/F/III/99 (i)

FINAL PAPER – III

ALL QUESTIONS ARE COMPULSORY

Write short notes on: 10 X 10 = 100

- a. Radionuclide scanning in renal diseases
- b. Role of CT in splenic trauma.
- c. Biliary interventions
- d. M.R. angiography
- e. Imaging in opaque hemithorax
- f. CT vs MRI in Cervical of Spiral trauma
- g. Clinical applications of Spiral CT
- h. Imaging of Thyroid solitary nodule
- i. Pheochromocytoma
- j. Role of Sonography in bleeding in 1 st trimester.

B/RDG/F/IV/99 (i)

FINAL PAPER – IV

ALL QUESTIONS ARE COMPULSORY

Write short notes on: 10 X 10 = 100

- a. Factors affecting contrast of an image
- b. Principle of Doppler with colour flow imaging.
- c. Anatomy of circle of Willis and imaging features of aneurysms of this region
- d. Skeletal changes in leukemia
- e. Segmental anatomy of the liver.
- f. Cystic tumours of the pancreas
- g. Pathology of abdominal tuberculosis
- h. Renal rickets
- i. Total anomalous pulmonary venous drainage
- j. Volume scanning with computed.

RADIO – DIAGNOSIS

JANUARY – 2000

B/RDG/F/I/2000 (i)

FINAL PAPER – I

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Child with urinary tract infection. Provide a protocol for imaging and mention their features. 25

2. Briefly describe the following: 5 X 15 = 75
 - a. Differentiating features of intra and extra-lobar sequestration of lung
 - b. Pathophysiology of Renal Rickets
 - c. Imaging in Aorto-arteritis
 - d. Pulmonary plethora and its distinctive features
 - e. MRI Bronchogenic carcinoma

B/RDG/F/II/2000 (i)

FINAL PAPER – II

Time : 3 hours Marks - 100

ALL QUESTIONS ARE COMPULSORY

1. Discuss portal hypertension, its radiological diagnosis and Interventional therapy. 25

2. Write short notes on: 5 X 15 = 75
 - a. Imaging in Thyroid pathology
 - b. Imaging in Congenital lesions of the Spine and Spinal cord
 - c. Psoriatic arthritis
 - d. Role of Radiology and Imaging in Intestinal ischemia
 - e. Imaging of the Placenta

JANUARY – 2000

B/RDG/F/III/2000 (i)

FINAL PAPER – III

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. How will you investigate a case of painless haematuria? What is the role of Radiologist in the management? 25

2. Write short notes on : 5 X 15 = 75
 - a. Radio-diagnosis of hyperparathyroidism
 - b. Investigation in a case of Exophthalmos
 - c. Imaging of prostate
 - d. Recent contrast media used in USG
 - e. Radiology and imaging of Meningiomas

B/RDG/F/IV/2000 (i)

FINAL PAPER - IV

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Describe the anatomy of Gastro-oesophageal junction and imaging of hiatus hernia.
25

2. Briefly describe the following: 5 X 15 = 75
 - a. Ultrasound image Artefacts
 - b. Mammographic Tube
 - c. Image Intensifier
 - d. Automatic Film Processor (AFP)
 - e. CT angiography Vs MR angiography

RADIO – DIAGNOSIS

JANUARY – 2001

B/RDG/F/I/2001 (i)

FINAL PAPER – I

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. What are clinical applications of Computed Tomography in evaluation of non-neoplastic Lung diseases? 25

2. Write short notes on: 5 X 15 = 75
 - a. Causes and imaging features of pericardial effusion
 - b. Sonographic diagnosis of Ectopic pregnancy
 - c. Abdominal aortic aneurism
 - d. Testicular germ cell tumours
 - e. Radiological diagnosis of congenital lesions of kidney.

B/RDG/F/II/2001 (i)

FINAL PAPER - II

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss the role of C.T. Angiography, its indications, advantages and limitations. 25

2. Write short notes on: 5 X 15 = 75
 - a. Radiology of rheumatoid disease
 - b. Imaging of posterior fossa
 - c. Expansile lesion – Mandible
 - d. Small bowel Enema
 - e. Radiological profile of ulcerative colitis

JANUARY – 2001

B/RDG/F/III/2001 (i)

FINAL PAPER - III

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Describe imaging in a 5 years old child presenting with lump in right lumber region
25

2. Write short notes on: 5 X 15 = 75
 - a. ERCP Vs MRCP
 - b. Imaging in blunt abdominal trauma
 - c. Interventions in upper urinary tract obstruction
 - d. Radio-isotope scanning in cardiac lesions
 - e. Role of Doppler in peripheral arterial disease

B/RDG/F/IV/2001 (i)

FINAL PAPER – IV

Time : 3 hours Marks - 100
ALL QUESTIONS ARE COMPULSORY

1. Discuss the Biological effects of Radiations and the measures taken against its protection for Radiation workers and patients in Radio-diagnosis department. 25

2. Write short notes on: 5 X 15 = 75
 - a. Intensifying Screen
 - b. Factors effecting quality of Radiograph
 - c. Segmental anatomy of Lungs
 - d. Harmonic imaging
 - e. Adverse drug reactions caused by I.V. Contrast Media

RADIO – DIAGNOSIS

December 2002

1. Doppler in renal transplant
2. Coarctation of aorta
3. Aorvoarteritis
4. MRI in cardiac disease
5. MRI urography
6. Infertility
7. Bronchopulmonary sequestration
8. Prun belly syndrome
9. ARDS
10. Tracheoesophageal fistula
11. Pancreatic pathology
12. SAH
13. Breast masses
14. Cystic jaw lesions
15. Orbit
16. Hand: an index of the disease
17. MR spectroscopy
18. Virtual endoscopy
19. Interventional in upper gi bleeding
20. Neurofibromatosis
21. CT in coronary angiography
22. MRCP in obstructive jaundice
23. Imaging in stroke
24. Imaging in postoperative stomach
25. Nuclear medicine in liver imaging
26. Intravascular ultrasound
27. Ionizing radiation in bone
28. Temporal bone
29. Intensifying screens
30. Automatic processor
31. MR angiography

RADIO – DIAGNOSIS

June 2003

PAPER – I

1. Imaging in carcinoma of Bronchus
2. Imaging in carcinoma Breast
3. Imaging in Renal cell carcinoma
4. Diffuse pulmonary fibrosis
5. Atypical pneumonias
6. Anterior mediastinal masses
7. Constrictive pericarditis
8. Vesico ureteral reflux
9. Rib notching – Imaging
10. Classification of aneurysm

Paper – II

1. Tumors of stomach. How will you investigate further.
2. (A). Pycnodysostosis
(B) E.R.C.P.
(C) Tuberos sclerosis
(D) Renal osteodystrophy
(E) IV Ventricle ependymoma

Paper III

1. Cisternography
2. PNBT act and its relevance to Sonologist
3. Investigate a child with limping gait.
4. Imaging of acute appendicitis
5. Double contrast barium sulfate examination.
6. USG changes in endometrium in a normal menstrual cycle
7. USG in thyroid lesions
8. Biliary drainage- Role of Interventional radiologist
9. Differential diagnosis for calcification on mammography
10. Fast MRI sequences.

Paper - IV.

1. Radiological anatomy of subarachnoid spaces and imaging of subarachnoid hemorrhage
2. (A) HRCT chest - Principle and pitfalls.
(B) USG contrast media
(C) Grid
(D) Principle of Digital subtraction angiography
(E) Rotating anode of x-ray tube

RADIO – DIAGNOSIS

December 2003

1. Bone age estimation
2. Portable radiography
3. Ground glass opacity hrct
4. Unilateral opaque hemithorax
5. Pulmonary thrombolism
6. Posterior mediastinal mass
7. Pancoast tumour
8. Imaging in chest trauma
9. Imaging in aids
10. Whiter matter disorders
11. Laryngeal carcinoma
12. Orbit tumours
13. Cystic lesion of jaw
14. Osteogenesis imperfecta
15. Hand as an index of disease
16. Hyperparathyroidism
17. MRCP
18. Principles of colour doppler
19. USG in retinal choroidal detachment
20. Biophysical score
21. Imaging in ischaemic heart disease
22. Renogram
23. Imaging in infertility
24. Imaging renal
25. Measures to decrease radiation dose to patient
26. Focal spot
27. Image intensifier
28. MSCT
29. Xray film
30. Stomach lymphoma
31. Acute abdomen ct
32. Intervention in portal hypertension
33. Malabsorption syndrome
34. Dissection aorta
35. Solitary dense vertebra

RADIO – DIAGNOSIS

June 2004

PAPER - I

TIME: 3 HOURS RDG/F/I/2004/1

Max. Marks: 100

**Attempt all questions in order.
Each question carries 10 marks.**

Write short notes on:

1. Chest x-ray in congenital heart diseases.
2. Pulmonary lesions in AIDS.
3. HRCT in chest diseases.
4. Use of CT, USG and MRI in prostate lesions.
5. Renal cell Carcinoma.
6. Emphysematous pyelonephritis
7. Polycystic kidney disease
8. Aortic aneurysm imaging.
9. SVC syndrome.
10. Carcinoma larynx.

PAPER – II

Attempt all questions in order.

LONG QUESTION

1. Anatomy of neck spaces and DD of masses.

SHORT NOTES:

2. GI Lymphoma
3. Orbital tumors
4. Bone changes in Hyperparathyroidism
5. Acute appendicitis - USG
6. Migrational anomalies of Brain.

RADIO – DIAGNOSIS

June 2004

PAPER – III

TIME: 3 HOURS

RDG/F/I/2004/3

Max. Marks: 100

**Attempt all questions in order.
Each question carries 10 marks.
Write short notes on:**

1. Chest X-ray cardiomyopathy
2. CT in Pancreatitis
3. Doppler in transplant kidney.
4. Neurofibromatosis
5. MRI in white matter diseases.
6. Arnold Chiari malformation
7. Bio-physical profile
8. Benign breast lesions.
9. Pheochromocytoma
10. Blunt abdominal trauma

PAPER - IV

TIME: 3 HOURS

RDG/F/I/2004/4

Max. Marks: 100

Attempt all questions in order.

LONG QUESTION:

1. Anatomy of orbit and imaging modalities

SHORT NOTES:

2. High tension transformer.
3. Scatter radiation
4. Peripheral vessel Doppler
5. Transrectal USG
6. Principle and advantages of DSA
7. Azygos lobe.
8. Scimitar Syndrome.

RADIO – DIAGNOSIS

DECEMBER – 2004

PAPER I

All questions are compulsory Time : 3 hrs.

Short notes: 10 x 10 = 100

1. Sarcoidosis
2. Eventration of diaphragm
3. Pulmonary Aspergillosis
4. Cardiac MRI
5. Pathophysiology and imaging correlation of Mitral valve disease
6. Coarctation of aorta
7. Role of Doppler in Testicular tumours
8. Vesico Ureteric Reflux
9. Nephrocalcinosis
10. Imaging in renal malignancies

PAPER II

1. Role of Diffusion Weighted Imaging in brain
2. Imaging features of Meningioma
3. Radiological investigation in SAH
4. Imaging of neuroendocrine tumours of pancreas
5. Congenital anomalies of Aortic arch and Major branches
6. Cystic lesions of the liver
7. Budd Chiari syndrome
8. Role of MR imaging in bone tumours
9. Endometriosis

RADIO – DIAGNOSIS

DECEMBER – 2004

PAPER III

1. New MR contrast media
2. Intra operative ultrasound
3. Tissue harmonic imaging
4. Radio Frequency Ablation - clinical Applications and Principles
5. Properties of X rays
6. PET
7. Digital radiography
8. MR Angiography techniques.
9. Virtual colonoscopy
10. Intensifying screens

PAPER IV

1. Multislice CT technology
2. Types of films used in radiology and imaging
3. Radiation monitoring devices
4. Radiation scatter.
5. Coronary imaging
6. Rare earth screens
7. New MR pulse sequences.
8. Contrast used in ultrasonography
9. Qualities of a Radiograph
10. Mammography Equipment

RADIO – DIAGNOSIS

June 2005

PAPER – I

1. Takayasu's disease
2. Cardiac CT
3. Radiology of primary pulmonary Koch's
4. Salient features of radiology of pulmonary metastases
5. Raised left dome of diaphragm
6. Diagnosis of renal hypertension – present day approach
7. Secondary hyperparathyroidism
8. Imaging of unilateral scrotal swelling
9. Diagnosis of non malignant prostatic enlargement
10. Radiology of mitral heart disease

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PAPER – II

1. Blood brain barrier
2. Imaging of cerebral ischaemic infarct
3. Lateral ventricular masses
4. Imaging & types of choledochal cysts
5. Basilar invagination
6. Digital radiography
7. Acute pancreatitis
8. Osseous lymphoma
9. Cystic lesions of ovaries
10. Therapeutic interventions in liver tumors

RADIO – DIAGNOSIS

June 2005

PAPER – III

1. Doppler evaluation in IUGR
2. GI Scintigraphy
3. Pancreatic endosonography
4. Conventional mammography techniques
5. High resolution CT
6. Management of adverse contrast reactions
7. Cranial sonography in infants
8. Radiology of brain tumors
9. Radiation dose reductions in CT
10. MR Venography

PAPER IV

1. Darkroom illumination
2. Virtual colonoscopy
3. Positron emission tomography
4. Modern rotatory x-ray tube
5. PACS – picture archival and communication system
6. TLD Thermo Luminescence Dosimeter
7. Filters and filtrations
8. MR coils
9. Design and setup of a radiology department
10. MR contrast agents

RADIO – DIAGNOSIS

December 2005

PAPER – I

Write short note on the following:

1. Renal tuberculosis
2. Ureterocoele
3. Ectopic pregnancy
4. Uterine interventions
5. Hyaline membrane disease
6. Pulmonary lesions in AIDS
7. Total anomalous pulmonary venous drainage
8. Aortic aneurysm
9. Role of nuclear medicine in ischaemic heart disease
10. Imaging in central bronchogenic carcinoma

PAPER – II

Write short notes on the following

1. Benign lesions of the liver
2. Endovascular management of intra cranial aneurysm
3. Imaging of temporal bone
4. Imaging of retro-peritoneum
5. Non-tubular inflammatory bowel disease
6. Angiography and intervention in portal hypertension
7. CT angiography and its application in abdomen
8. PNBT
9. MR imaging of gynecologic imaging
10. Radiology of soft tissues

RADIO – DIAGNOSIS

December 2005

PAPER – III

Write short notes on the following

1. X-ray beam restrictors
2. Mammography
3. Sonohysterography
4. Percutaneous vertebroplasty
5. Virtual bronchoscopy
6. Non-ionic contrast media
7. MRA in lower limb arteries
8. Motion and pulsation artifacts in MRI
9. Principles of ct angiography
10. Adverse effect of radiation

PAPER – IV

Write short notes on the following

1. Computed radiography and digital radiography
2. Automatic film processing
3. Bone scan
4. Cine fluoroscopy
5. Non-ionic contrast agents
6. Grids
7. Doppler evaluation of deep veins of leg
8. MRCP vs ERCP
9. Spectroscopy
10. Protective measures taken to protect staff and patients against radiation hazards

RADIO – DIAGNOSIS

June 2006

Write short notes on the following:

1. Pulmonary thromboembolism
2. Non-specific aortoarteritis
3. Left to right shunts
4. Sequestered lung segment
5. Primary pulmonary tuberculosis
6. Angiomyolipoma of the kidney
7. Neurogenic bladder
8. Unilateral large kidney in a child
9. Clinical-radiological profile of pancoast tumour
10. Posterior urethral valve
11. Benign lesions of the liver
12. Endovascular management of intracranial aneurysm
13. Imaging of petrous bone
14. MRI-imaging of retroperitoneum
15. Non-tubercular inflammatory bowel disease
16. Angiography and intervention in portal hypertension.
17. CT angiography and its application in abdomen
18. Colour doppler in I.U.G.R.
19. Radiology of soft tissue
20. Techniques for evaluation of acromegaly
21. Outline of techniques in functional MRI
22. Triple phase portography
23. Ultrasonography contrast media
24. Screens used in cassettes
25. Total evaluation techniques for adrenal disease
26. Film artifacts
27. Setting up a radiology department in a 200 bedded hospital
28. Outline of radio-isotopes available.
29. Evaluation techniques for basilar invagination
30. Radiological evaluation of delayed milestones
31. Computed radiography vs. Digital radiography
32. Mammography x-ray tube
33. Principles of CT bronchoscopy and its uses
34. Radiation protection in an x-ray dept.
35. Electrical circuits of x-ray machine
36. Describe the positioning for various skull x-ray views
37. Techniques of MRI angiography
38. Safety hazards in MRI
39. Steps to improve the quality of a chest x-ray
40. Ct angiography – present status

RADIO – DIAGNOSIS

July 2007

RDJ/VI/07/I

Marks : 100
Time : 3 hrs.

Paper I

Kindly attempt all questions. Each question carries 10 marks.
Write short notes on:

1. Antenatal MRI.
2. Imaging in Endometriosis.
3. Radiological features in Renal Tuberculosis.
4. Classify cystic diseases of kidney and discuss role of ultrasound in these lesions.
5. Discuss radiological features in congenital cystic adnomatoid malfunction of the lung.
6. Wegener's Granulomatosis
7. Ebstein's anomaly.
8. MR sequences in Cardiac Imaging.
9. Imaging features in Takayasu Arteritis.
10. Intervention in Intracranial malformation.

July 2007

RDJ/VI/07/I

Marks : 100
Time : 3 hrs.

Paper II

Kindly attempt all questions. Each question carries 10 marks.

Write short notes on:

1. Imaging features in Mucopolysaccharidosis.
2. Radiological features in sickle cell anemia.
3. Discuss causes of diffuse skeletal sclerosis and role of imaging in it.
4. Imaging and intervention in spinal anterior-venous malformation.
5. Imaging in Tuberous Sclerosis and its associations.
6. MRI in Alzheimer's disease.
7. Imaging in retroperitoneal fibrosis.
8. Role of plain radiography in acute abdomen.
9. Critical appraisal on role of small bowel enema, CT & MRI enteroclysis.
10. Discuss the procedure for Barium Enema.

RADIO – DIAGNOSIS

December 2007

PAPER - I

TIME: 3 HOURS

RDG/F/II/2007/1

Max. Marks: 100

Attempt all questions in order.

Each question carries 10 marks.

Write short notes on:

1. Role of chest radiograph & CT chest in AIDS.
2. Anterior mediastinal masses in children.
3. HRCT in pulmonary tuberculosis;
4. Radiological approach in acyanotic heart disease.
5. Total Anomalous Pulmonary Venous drainage.
6. MRI in Cardiac Imaging.
7. Radiological features of renal tuberculosis.
8. Classify adrenal tumours and role of CT & MRI in evaluating them.
9. Antenatal MRI.
10. Sonography of cystic ovarian masses.

PAPER – II

Attempt all questions in order.

Each question carries 10 marks.

Write short notes on:

1. Radiological features of gastric lymphoma.
2. MR enteroclysis – techniques and applications
3. Colonic strictures – etiology and role of imaging in diagnosis of structures.
4. Doppler in hepatic cirrhosis.
5. Radiological features in diffuse axonal injury.
6. Imaging in unilateral exophthalmos.
7. Central pontine myelinolysis.
8. Osseous spectrum in neurofibromatosis.
9. Sero negative spondyloarthropathy.
10. Differential diagnosis of radiological appearance of absorption of terminal phalanges.

RADIO – DIAGNOSIS

December 2007

PAPER – III

TIME: 3 HOURS

RDG/F/II/2007/3

Max. Marks: 100

Attempt all questions in order.
Each question carries 10 marks.
Write short notes on:

1. Role of C.T. in epiploic appendigitis.
2. Ocular blood flow in normal and Glaucomatous eye on color Doppler imaging.
3. Vein of galen malformation.
4. Vertebroplasty in non-infective vertebral collapse
5. Internal Hernias.
6. C.T. Colonography (Virtual colonoscopy)
7. Radiological management of Bomb-Blast injury.
8. Sickle cell disease – radiological appearances.
9. Imaging of acute appendicitis.
10. Glutaric Aciduria Type I.

PAPER - IV

TIME: 3 HOURS

RDG/F/II/2007/4

Max. Marks: 100

Attempt all questions in order.
Each question carries 10 marks.
Write short notes on:

1. Doppler evaluation in male impotence.
2. CT – Pelvimetry.
3. Maximum permissible radiation dose.
4. PNDT – Act
5. CT & MRI anatomy of Adrenal glands and normal variants.
6. Flat panel digital radiography.
7. Conventional skull radiography.
8. Grid.
9. Azygos lobe.
10. Scimitar Syndrome.

RADIO – DIAGNOSIS

JUNE 2008

PAPER – 1

TIME: 3 HOURS

Max. Marks: 100

RDG/F/II/2008/1

Attempt all questions in order.

Each question carries 10 marks.

Write short notes on:

1. Discuss the role of MR in evaluation of pericardium and its pathologies.
2. Enumerate the causes of varicocele. Write US technique and US and color Doppler features in varicocele.
3. Discuss indications, technique and complications of bronchial artery embolisation.
4. How would you evaluate donor kidney for renal transplant. Discuss role of US and scintigraphy in various types of renal graft dysfunction.
5. Discuss in detail imaging features of thoracic lymphoma.
6. What are the causes of pulmonary venous hypertension? Describe plain x-ray findings in pulmonary venous hypertension.
7. Discuss pathophysiology and imaging features in respiratory distress in newborn.
8. Discuss the role of various imaging modalities in a suspected case of renovascular hypertension.
9. Draw a neat line diagram of perinephric spaces including its relationship with other spaces. Write CT features of perinephric abscess and urinoma.
10. Write in detail US features of placental evaluation.

PAPER – II

TIME: 3 HOURS

Max. Marks: 100

RDG/F/II/2008/2

Attempt all questions in order.

Each question carries 10 marks. Write short notes on:

1. Describe CT features of liver trauma and discuss role of intervention in this.
2. Discuss the etiology, classification, imaging features and complications of choledochal cyst.
3. Discuss CT and MR features of neurological complications of AIDS.
4. Classify orbital lesions in relation to various orbital spaces. Discuss MR features in orbital pseudotumor.
5. What are round cell tumors of bone? Discuss in detail differentiating imaging features in these.
6. Describe radiological features, complications and differential diagnosis of paget's disease.
7. Discuss the techniques, imaging features and limitations of sonographic evaluation of rotator cuff.
8. Enumerate CP angle tumors and discuss their differentiating features on CT and MRI.
9. Describe MR anatomy of pituitary gland. Discuss in detail MR techniques and features to diagnose pituitary adenomas.
10. Describe the technique and US features in acute appendicitis. Also describe US features of conditions mimicking acute appendicitis.

PAPER – III

TIME: 3 HOURS

RDG/F/II/2008/3

Max. Marks: 100

Attempt all questions in order.
Each question carries 10 marks.
Write short notes on:

1. Doppler artifacts and pitfalls.
2. Diffusion weighted MRI.
3. Color Doppler evaluation of erectile dysfunction.
4. Describe the normal anatomy of coronary arteries and discuss the role of MDCT in coronary artery diseases.
5. Sonography in solid breast masses.
6. Role of chest radiography in emergency situations.
7. Discuss various techniques of elastography and their clinical applications.
8. Discuss various causes and imaging features in stricture of lower end of esophagus.
9. Enumerate various causes of paravertebral masses and their imaging features.
10. Principles and role of PET in clinical radiology.

PAPER – IV

TIME: 3 HOURS

RDG/F/II/2008/4

Max. Marks: 100

Attempt all questions in order.
Each question carries 10 marks.
Write short notes on:

1. Define quality assurance. Discuss the organization of quality assurance programme pertaining to radiology equipment.
2. Define the basic units of radiation exposure. Describe biological effects of radiation.
3. Principles and clinical applications of dual energy CT.
4. Discuss about mammography x-ray unit.
5. Classify idiosyncratic reactions resulting from contrast media administration. Describe the management of life threatening adverse reactions.
6. Define scatter radiation. Discuss briefly the parameters which influence scatter radiation and methods to reduce scatter radiation.
7. Discuss about various MR contrast media and their mechanism of action.
8. Compositions of x-ray films. Discuss about different parameters which influence film contrast.
9. What is digital radiography? Discuss its advantages and disadvantages.
10. Define principles of radiation protection. Describe various parameters which can reduce patient radiation dose in radiography and fluoroscopy.