

## MANIPAL UNIVERSITY

## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – APRIL 2013

SUBJECT: PAPER I: BASIC SCIENCES RELATED TO RADIOLOGY (IT CONSISTS OF ANATOMY, PATHOLOGY, BASIC AND RADIATION PHYSICS, IMAGING TECHNIQUES AND DARK ROOM PROCESSING)

Tuesday, April 02, 2013

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

1. Classify intravenous contrast media. What are the advantages of newer generation of contrast media? Discuss their adverse reactions.

(34 marks)

2. Write short notes on the following:

- 2A. Dark room safelight
- 2B. Co2 Angiography
- 2C. Air gap technique
- 2D. Dacryocystography
- 2E. Nephrogenic systemic fibrosis
- 2F. PACS

(11×6 = 66 marks)



## MANIPAL UNIVERSITY

## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – APRIL 2013

SUBJECT: PAPER II: CVS. RESP. GIT (INCLUDING HEPATO BILIARY),  
ENDOCRINE, CHEST, MAMMOGRAPHY

Wednesday, April 03, 2013

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

☞ Answer ALL the questions.

1. Discuss coronary artery anatomy and its congenital variations. Elaborate on the role of computed tomography in assessment of coronary artery disease.

(34 marks)

2. Write short notes on the following:

- 2A. Endometriosis  
2B. Benign breast masses  
2C. Multicystic dysplastic kidney  
2D. Pre-malignant conditions of the intestine  
2E. Nephrocalcinosis  
2F. Intramural air in G.I.T.

(11×6 = 66 marks)



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### MD (RADIODIAGNOSIS) DEGREE EXAMINATION – APRIL 2013

**SUBJECT: PAPER III: GENITOURINARY, RETROPERITONEUM, CNS INCLUDING HEAD AND NECK, MUSCULOSKELETAL SYSTEM, OBST. & GYNAE, ENT AND EYE AND INTERVENTIONAL RADIOLOGY**

Thursday, April 04, 2013

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

1. Describe the technical aspects of HRCT of the lung. Describe the imaging features of collagen vascular diseases in lung.

(34 marks)

2. **Write short notes on the following:**

- 2A. Developmental dysplasia of hip
- 2B. Salter Harris fractures
- 2C. Intramedullary tumours of spinal cord
- 2D. Pituitary macroadenoma
- 2E. Primary pulmonary tuberculosis
- 2F. Renal osteodystrophy

(11×6 = 66 marks)



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## MANIPAL UNIVERSITY

MD (RADIODIAGNOSIS) DEGREE EXAMINATION – APRIL 2013

SUBJECT: PAPER IV: RECENT ADVANCES AND NUCLEAR MEDICINE RADIOLOGY  
RELATED TO CLINICAL SPECIALITIES

Friday, April 05, 2013

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

**Answer ALL the questions.**

1. Discuss the principles, instrumentation and methodology of PET imaging. Elaborate on its role in head and neck cancers.

(34 marks)

2. **Write short notes on the following:**

- 2A. Diffusion and perfusion weighted imaging in stroke  
2B. Carotid stenting  
2C. Gradient echo imaging  
2D. Super paramagnetic MR contrast media  
2E. Digital tomosynthesis in breast imaging  
2F. PET in evaluation of GIT

(11×6 = 66 marks)

