

# MANIPAL UNIVERSITY

## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – OCTOBER 2015

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

Tuesday, October 06, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

**✍ Answer ALL the questions.**

**✍ Long Questions:**

1. Discuss the cross sectional anatomy of neck spaces. (15 marks)
2. Define film contrast. Enumerate various factors affecting film contrast. Briefly discuss methods to improve it. (15 marks)

**3. Short Questions:**

- 3A. Autotransformer
- 3B. Personnel dosimetry systems
- 3C. Thermionic emission
- 3D. Myelography
- 3E. MR angiography
- 3F. PACS
- 3G. Intra operative ultrasound
- 3H. CT detectors
- 3I. Tomosynthesis
- 3J. Hazards and safe practice in MRI

(7 marks × 10 = 70 marks)



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## MANIPAL UNIVERSITY

### MD (RADIODIAGNOSIS) DEGREE EXAMINATION – OCTOBER 2015

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

Wednesday, October 07, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the question.**

✍ **Long Questions:**

1. Discuss the role of a radiologist in management of a patient with vascular claudication pain.  
(15 marks)
2. Discuss the imaging approach in a 50 year old male presenting with right iliac fossa mass.  
(15 marks)

3. **Short Questions:**

- 3A. Describe plain radiographic and CT findings of right upper lobe pulmonary collapse
- 3B. CT Colonography
- 3C. Cardiogenic Vs Non-Cardiogenic pulmonary edema
- 3D. Budd Chiari syndrome
- 3E. Role of USG in evaluating solitary thyroid nodule
- 3F. Partial anomalous pulmonary venous drainage
- 3G. Mammographic and sonographic features of breast malignancy
- 3H. CT Imaging of acute pancreatitis
- 3I. Mediastinal lymph nodes and lymphatic drainage of lung
- 3J. Pneumoperitoneum

(7 marks × 10 = 70 marks)



# MANIPAL UNIVERSITY

## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – OCTOBER 2015

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

Thursday, October 08, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Questions:**

1. Describe the types of IUGR. Discuss the role of Radiologist in evaluation of IUGR. (15 marks)
2. Describe the anatomy of visual pathway diagrammatically. Briefly discuss the common lesions along the pathway and define field defects caused by them. (15 marks)

3. **Short Questions:**

- 3A. Scurvy
- 3B. Normal pressure hydrocephalus
- 3C. Acute pyelonephritis
- 3D. Retinoblastoma
- 3E. Fibrous dysplasia
- 3F. Horseshoe kidney
- 3G. Septo-optic dysplasia
- 3H. Brodie's abscess
- 3I. Percutaneous nephrostomy
- 3J. Arachnoid cyst

(7 marks × 10 = 70 marks)



**MANIPAL UNIVERSITY****MD (RADIODIAGNOSIS) DEGREE EXAMINATION – OCTOBER 2015****SUBJECT: PAPER IV: RECENT ADVANCES AND NUCLEAR MEDICINE RADIOLOGY  
RELATED TO CLINICAL SPECIALITIES**

Friday, October 09, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Questions:**

1. Discuss imaging of cerebral aneurysms and the recent trends in their management. (15 marks)
2. Discuss the role of advanced MR of breast tumours. (15 marks)

3. **Short Questions:**

- 3A. Ultrasound contrast media
  - 3B. MR Pelvimetry
  - 3C. Cryotherapy
  - 3D. PET in evaluation of GIT
  - 3E. Advantage and disadvantages of CR & DR
  - 3F. Imaging of the brachial plexus
  - 3G. MRI in pediatric lung evaluation
  - 3H. Fast MRI techniques
  - 3I. Hepatobiliary contrast agents
  - 3J. MR Tractography
- (7 marks × 10 = 70 marks)

