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# MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – DECEMBER 2005

**SUBJECT: PAPER I: PHYSICS AS APPLIED TO RADIO DIAGNOSIS,  
BASIC SCIENCES APPLIED TO RADIO DIAGNOSIS**

Monday, December 05, 2005

Time: 3 Hrs.

Max. Marks: 100

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✍ **Answer all the questions**

1. What is an image intensifier? Draw a diagram and write in detail its construction and uses in Radiology.

(34 marks)

2. Write short notes on the following:

2A. Mammography unit.

2B. High K V technique in chest x-ray.

2C. Auto transformer.

2D. Full wave rectification.

2E. Intensifying screens.

2F. Factors affecting image quality in computed tomography.

(11 × 6 = 66 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

## MD (RADIOLOGICAL) DEGREE EXAMINATION – DECEMBER 2005

### SUBJECT: PAPER II: RADIOLOGY AND IMAGING RELATED TO THE GASTROINTESTINAL TRACT, GENITOURINARY TRACT AND CARDIOVASCULAR SYSTEM

Tuesday, December 06, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

1. Describe the development of atrial septum. Enumerate the common atrial septal defects and discuss their radiological features.

(34 marks)

2. Write short notes on the following:

- 2A. Pheochromocytoma.
- 2B. Meconium ileus.
- 2C. Oesophageal Diverticuli.
- 2D. Development of kidney.
- 2E. Posterior urethral valve obstruction.
- 2F. CT in adrenal tumour.

(11 × 6 = 66 marks)



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## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – DECEMBER 2005

### SUBJECT: PAPER III: RADIOLOGY AND IMAGING RELATED TO NEUROLOGY, CHEST AND SKELETAL SYSTEM

Wednesday, December 07, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

1. Enumerate the causes of a cavitating lesions in the chest and discuss the different radiological features of each.

(34 marks)

2. Write short notes on the following:

- 2A. Thoracic skeletal changes associated with C.V.S. diseases.  
2B. Multiple Myeloma.  
2C. Neuropathic joints.  
2D. CT in neuro tuberculosis.  
2E. Syringomyelia.  
2F. Orbital tumours in children.

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(11 × 6 = 66 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – DECEMBER 2005

SUBJECT: PAPER IV: RECENT ADVANCES INCLUDING IMAGING AND CLINICAL RADIOLOGY

Thursday, December 08, 2005

Time: 3 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

1. Enumerate causes of exophthalmos. Discuss the differential diagnosis and radiological features of pulsating exophthalmos. What is the role of interventional radiology in pulsating exophthalmos?

(34 marks)

2. Write short notes on:

- 2A. Intravenous digital subtraction angiography.
- 2B. Role of Radio-nuclide scan in the biliary system.
- 2C. Precautions during radiological procedures in HIV positive cases.
- 2D. <sup>99m</sup> technetium labeled nuclide scan.
- 2E. Sonohysterography.
- 2F. Echoplanar imaging.

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(11 × 6 = 66 marks)

