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# MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – JULY 2006

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

Monday, July 03, 2006

Time: 3 Hrs.

Max. Marks: 100

**Answer all the questions**

1. Describe the X-ray tube with the help of a diagram. How are X-rays produced from an X-ray tube?

(34 marks)

2. Write short notes on the following:

2A. Dark room safelight.

2B. Piezo electric effect.

2C. Radiological anatomy of sella.

2D. Transformer.

2E. Film emulsion.

2F. Technical parameters of X-ray equipment for fluoroscopic procedures.

(11×6 = 66 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

## MD (RADIOLOGICAL) DEGREE EXAMINATION – JULY 2006

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

Tuesday, July 04, 2006

Time: 3 Hrs.

Max. Marks: 100

*✍* Answer ALL the questions.

1. Discuss various MR sequences used for evaluation of thoracic aorta.

(34 marks)

2. Write short notes on the following:

2A. Cystic neoplasms liver.

2B. Malrotation of intestine.

2C. Pancreatic pseudocyst.

2D. Medullary sponge kidney.

2E. Testicular tumours.

2F. Endometriosis

(11×6 = 66 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

## MD (RADIODIAGNOSIS) DEGREE EXAMINATION – JULY 2006

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

Wednesday, July 05, 2006

Time: 3 Hrs.

Max. Marks: 100

**Answer ALL the questions.**

1. Describe the radiological anatomy of crano vertebral junction. Describe the role of plain X-ray in the evaluation of C.V. junction.

(34 marks)

2. Write short notes on the following:

- 2A. Describe the pathology and radiological findings in adult respiratory distress syndrome.  
2B. Pyknodysostosis.  
2C. Pigmented villonodular synovitis.  
2D. Psoriatic arthritis.  
2E. Sub pulmonic effusion.  
2F. Plain X-ray features of malignant solitary pulmonary nodule.

(11×6 = 66 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

(Deemed University)

## MD (RADIO DIAGNOSIS) DEGREE EXAMINATION – JULY 2006

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

Thursday, July 06, 2006

Time: 3 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

1. Discuss the role of duplex doppler in the diagnosis of portal hypertension.

(34 marks)

2. Write short notes on:

2A. Radionuclide imaging of central nervous system.

2B. Compare and contrast CT myelography and M.R.I.

2C. Fast MR imaging techniques.

2D. Virtual endoscopy.

2E. USG contrast media.

2F. Digital subtraction rotational angiography.

(11×6 = 66 marks)

