

Reg. No.

MANIPAL UNIVERSITY

PG DIPLOMA IN RADIO-DIAGNOSIS (D.M.R.D.) EXAMINATION – APRIL 2017

SUBJECT: PAPER I: BASIC SCIENCES RELATED TO RADIOLOGY (ANATOMY, PATHOLOGY, BASIC AND RADIATION PHYSICS, TECHNIQUE AND DARK ROOM PROCESSING AND APPARATUS CONSTRUCTION)

Monday, April 03, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Long Questions:

1. Describe in detail the structure and principle of Intensifying screen. Discuss the newer phosphor technology.

(15 marks)

2. Discuss the basic principles of MR imaging.

(15 marks)

3. Short Questions:

3A. High frequency generators

3B. Principles of dual energy computed tomography (DECT)

3C. Hazards and safe practice in MRI

3D. Cross-Sectional labeled diagram of Peritoneal Spaces at level of renal hila

3E. ICRP recommendations

3F. Iodixanol

3G. Line focus principle

3H. Compton effect

3I. Mobile x-ray unit

3J. Computed Radiography (CR) Artefacts

(7 marks × 10 = 70 marks)



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**SUBJECT: PAPER II: CNS INCLUDING HEAD AND NECK, MUSCULOSKELETAL,
CHEST, MAMMOGRAPHY, C.V.S.**

Tuesday, April 04, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Questions:**

1. Role of diffusion imaging in musculoskeletal system.

(15 marks)

2. Discuss the chest radiograph evaluation of cardiac shapes and morphology in diagnosis of heart disease.

(15 marks)

3. **Short Questions:**

3A. Primary bone lymphoma

3B. Conventional osteosarcoma

3C. Solid/continuous periosteal reaction

3D. Medulloblastoma

3E. Imaging in Otitis media

3F. Mucocele of para-nasal sinus

3G. Radiographic and CT findings of different types of bronchiectasis

3H. Etiopathogenesis and imaging findings of asbestosis

3I. Single ventricle

3J. Cardiac and Pericardiac calcification

(7 marks × 10 = 70 marks)



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PG DIPLOMA IN RADIO-DIAGNOSIS (D.M.R.D.) EXAMINATION – APRIL 2017

SUBJECT: PAPER III: ABDOMINAL IMAGING INCLUDING GI, GU, HEPATOBILIARY,
INTERVENTIONAL RADIOLOGY, OBST AND GYNAE

Wednesday, April 05, 2017

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL questions.

✍ Long Questions:

1. Discuss the role of imaging in malignant hepatic tumours in adults.

(15 marks)

2. Discuss the indications, contraindications, techniques and urographic interpretation of IVU.

(15 marks)

3. Short Questions:

3A. Gastric volvulus

3B. Prune belly syndrome

3C. Biliary strictures

3D. Posterior urethral valve

3E. Anorectal malformation

3F. Anatomy of male urethra & ascending urethrogram

3G. Hiatus Hernia

3H. Renal vein thrombosis

3I. Coeliac plexus block

3J. Filling defect in the urinary bladder

(7 marks × 10 = 70 marks)

