

MANIPAL UNIVERSITY**PG DIPLOMA IN RADIO-DIAGNOSIS (D.M.R.D.) EXAMINATION – APRIL 2015****SUBJECT: PAPER I: BASIC SCIENCES RELATED TO RADIOLOGY (ANATOMY, PATHOLOGY, BASIC AND RADIATION PHYSICS, TECHNIQUE AND DARK ROOM PROCESSING AND APPARATUS CONSTRUCTION)**

Wednesday, April 01, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Questions:**

1. What is maximum permissible dose? Describe the methods of radiation protection to the patient and staff in diagnostic radiology.

(15 marks)

2. Describe in detail the construction and constituent of developer and fixer used in manual and automated processing.

(15 marks)

3. **Short Questions:**

3A. Rotating Anode

3B. Wedge filter

3C. Paramagnetic contrast media

3D. Segmental anatomy of liver and its importance

3E. Computed Radiography (CR) Artefacts

3F. Time gain compensation (TGC) and dynamic range in ultrasound

3G. MR myelography

3H. Dacryocystography

3I. Post processing techniques in MDCT and their utility

3J. PACS

(7 marks × 10 = 70 marks)



MANIPAL UNIVERSITY**PG DIPLOMA IN RADIO-DIAGNOSIS (D.M.R.D.) EXAMINATION – APRIL 2015****SUBJECT: PAPER II: CNS INCLUDING HEAD AND NECK, MUSCULOSKELETAL,
CHEST, MAMMOGRAPHY, C.V.S.**

Thursday, April 02, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Questions:**

1. Classify pleural tumours. Briefly discuss chest radiographic and CT findings of malignant mesothelioma.

(15 marks)

2. Describe the calcium metabolism and discuss radiological changes in hyperparathyroidism.

(15 marks)

3. **Short Answer Questions:**

3A. MRI findings in intracerebral hemorrhage

3B. Mesial temporal sclerosis

3C. Ankylosing spondylitis

3D. Basal ganglia hyperintensity

3E. Bronchogenic cyst

3F. Solitary thyroid nodule

3G. Cardiogenic Vs Non-Cardiogenic pulmonary edema

3H. Cleidocranial dysplasia

3I. BI-RADS

3J. Tetralogy of Fallot

(7 marks × 10 = 70 marks)



MANIPAL UNIVERSITY

PG DIPLOMA IN RADIO-DIAGNOSIS (D.M.R.D.) EXAMINATION – APRIL 2015

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

Saturday, April 04, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Questions:**

1. Discuss the role of imaging and management of female infertility. (15 marks)
2. Enumerate the causes of upper GI tract bleeding. How will you approach to investigate and manage a case of hematemesis? (15 marks)

3. **Short Questions:**

- 3A. Meckel's diverticulum
- 3B. Ovarian dermoid
- 3C. Motility disorder of oesophagus
- 3D. MR in Carcinoma cervix
- 3E. Enteroclysis
- 3F. Adrenal adenoma
- 3G. Meconeum ileus
- 3H. Portal hypertension
- 3I. Ovarian torsion
- 3J. Imaging in diverticular disease

(7 marks × 10 = 70 marks)

