

Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION

PG DIPLOMA IN RADIO-DIAGNOSIS (D.M.R.D.) EXAMINATION – APRIL 2019

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

Tuesday, April 02, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Questions:**

1. Enumerate factors affecting radiographic image quality. How will you improve radiographic image quality?

(15 marks)

2. Discuss the principles, construction and functionalities of individual components of an image intensifier. Briefly describe the fluoroscopic imaging unit assembly.

(15 marks)

3. **Short answer Questions:**

3A. New MR pulse sequences

3B. Tomosynthesis

3C. Fetal circulation

3D. Air gap technique

3E. Post processing techniques in MDCT and their utility

3F. Bone densitometry

3G. Paramagnetic MR contrast media

3H. ICRP recommendations

3I. Ultrasonic display modes

3J. Film processor

(7 marks × 10 = 70 marks)



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PG DIPLOMA IN RADIO-DIAGNOSIS (D.M.R.D.) EXAMINATION – APRIL 2019

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

Wednesday, April 03, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Questions:**

1. Discuss the principles, techniques, advantages, limitations and complications of catheter angiography. (15 marks)
2. Describe various radiographic and CT features of Tuberculosis involving the chest. (15 marks)

3. **Short Notes:**

- 3A. Pituitary microadenoma
- 3B. Acro-osteolysis
- 3C. Caudal regression syndrome
- 3D. Diffuse Idiopathic Skeletal Hyperostosis
- 3E. Lymphangitis carcinomatosa
- 3F. Embolic agents
- 3G. Radio-isotopes in thyroid disorders
- 3H. Osteogenesis imperfecta
- 3I. Intraocular tumors
- 3J. Pulmonary sarcoidosis

(7 marks × 10 = 70 marks)



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PG DIPLOMA IN RADIO-DIAGNOSIS (D.M.R.D.) EXAMINATION – APRIL 2019

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

Thursday, April 04, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Questions:**

1. Imaging assessment and management of Pancreatitis. (15 marks)
2. Discuss the role of imaging in a 35 yr old female presenting with lower abdominal pain. (15 marks)

3. **Short Questions:**

- 3A. Superior mesentric artery syndrome
- 3B. Sonohysterography
- 3C. Subphrenic abscess
- 3D. Zonal anatomy of prostate
- 3E. Hepatic hydatid disease
- 3F. Polycystic ovarian disease
- 3G. Sigmoid volvulus
- 3H. Renal angiomyolipoma
- 3I. Adenomyomatosis of the gall bladder
- 3J. Polyhydraminos

(7 marks × 10 = 70 marks)

