

April 2012

[LA 1514]

Sub. Code: 3019

**DIPLOMA IN MEDICAL RADIODIAGNOSIS (DMRD)
EXAMINATION**

**MEDICAL RADIATION PHYSICS AS APPLIED TO
RADIODIAGNOSIS *Q.P. Code : 343019***

Time : 3 hours Maximum : 100 marks (180 Min)

Answer ALL questions in the same order.

I. Elaborate on :

**Pages Time Marks
(Max.) (Max.) (Max.)**

- | | | | |
|----|---|----|----|
| 1. | Principles of radiation protection. Describe various | 16 | 35 |
| | 15 Parameters which can reduce patient radiation in conventional radiography and fluoroscopy. | | |
| 2. | Describe the interactions of x – ray with matter. Add a | 16 | |
| | 35 15 note on scatter radiation reduction. | | |

II. Write notes on :

1. Multipulse multifrequency X – ray.	4	10	7
2. MRI artefacts.	4	10	7
3. Larmor frequency.	4	10	7
4. Cassettes of conventional and dedicated digital radiography.	4	10	7
5. Principles of image intensifier tube.	4	10	7
6. Principles of DWI.	4	10	7
7. Cones on Radiology Department.	4	10	7
8. Modulation Transfer Function.	4	10	7
9. Factors which control quality of X - rays.	4	10	7
10. Half value layer.	4	10	7

[LA 1515]
3020

April 2012

Sub. Code:

**DIPLOMA IN MEDICAL RADIODIAGNOSIS (DMRD)
EXAMINATION RADIODIAGNOSIS AND IMAGING**

Q.P. Code : 343020

Time : 3 hours Maximum : 100 marks (180 Min)
Answer ALL questions in the same order.

I. Elaborate on : Pages Time Marks

	(Max.)	(Max.)	(Max.)
1. Discuss in detail the differential diagnosis of nodular Lesions in the lung fields and the imaging modalities used to diagnose them.	16	35	15
2. Describe in detail the usefulness of the different imaging modalities in managing the patient with acute head injury.	16	35	15

II. Write notes on :

1. Use of Trans hepatic Venous Sampling.	4	10	7
2. Imaging features of Intussusception.	4	10	7
3. Technique and use of Endoluminal Ultrasound.	4	10	7
4. Causes of small bowel fluid levels and plain X ray findings.	4	10	7
5. Disorders causing disability in the cervical spine in children and imaging appearance.	4	10	7
6. CT and ultrasound findings in Chronic Pancreatitis.	4	10	7
7. Types and radiological features of Tracheo oesophageal Fistula.	4	10	7
8. Plain X ray and MRI findings in Osteomyelitis.	4	10	7

9. Causes and radiographic findings in Pneumo Mediastinum. 4 10 7 10. Causes and plain X ray findings of Rib Notching. 4 10 7

April 2012

**[LA 1516]
3021**

Sub. Code:

DIPLOMA IN MEDICAL RADIODIAGNOSIS (DMRD) EXAMINATION

RADIODIAGNOSIS INCLUDING NUCLEAR MEDICINE

Q.P. Code : 343021

Time : 3 hours

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on : Pages Time Marks

- | | (Max.) | (Max.) | (Max.) |
|--|---------------|---------------|---------------|
| 1. Discuss in detail Cystic Disease of the Kidney and the Imaging modalities used in their management. | 16 | 35 | 15 |
| 2. Elaborate in detail the causes of Small bowel obstruction and the role of radiology and imaging in the diagnosis and treatment of the same. | 16 | 35 | 15 |

II. Write notes on :

- | | | | |
|---|---|----|---|
| 1. Causes and imaging appearances in Seller and suprasellar tumors. | 4 | 10 | 7 |
| 2. Congenital Uterine abnormalities and ultra sound appearance. | 4 | 10 | 7 |
| 3. Tumors of the salivary gland and technique of Sialography. | 4 | 10 | 7 |
| 4. Technique of Trans Cranial Doppler Sonography. | 4 | 10 | 7 |
| 5. Disorders of the Lympho reticular system and imaging | | | |

appearance.	4	10	7
6. Technique of MR Venography.	4	10	7
7. Radiological appearance in Thalassemia.	4	10	7
8. Causes of Pneumothorax and imaging appearance.	4	10	7
9. Classification of Injuries around the Ankle and plain X-ray findings.	4	10	7
10. Clinical application of MIBG SCAN.	4	10	7