[LG 1514] **APRIL 2015** **Sub. Code: 3019**

DIPLOMA IN MEDICAL RADIODIAGNOSIS
(DMRD)

EXAMINATION

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

Time: Three Hours I. **Maximum: 100 marks**

Elaborate on:

Answer ALL questions

(2 x 15 = 30)

1. Write the principle of fluoroscopy and discuss in detail about image intensifiers.

2. Discuss the physics of X-ray production. Elaborate its use and principles in CT – imaging.

II. Write notes on: **(10 x 7 = 70)**

1. Ultrasound contrast agents.
2. MR artefacts.
3. Physics of Diffusion weighted sequences.
4. Wet processing of X-ray films using chemicals.
5. Ultrasound transducer.
6. Radiation units in practice.
7. Mammography films.
8. TLD badge.
9. Physics of MR angiography.
10. Computed Radiography.

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[LG 1515] **APRIL 2015** **Sub. Code: 3020**

DIPLOMA IN MEDICAL RADIODIAGNOSIS
(DMRD)

EXAMINATION

RADIODIAGNOSIS AND IMAGING

Q.P. Code : 343020

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 15 = 30)**

1. What are the differential diagnoses for a patient presenting with unilateral proptosis? Discuss the importance of imaging in arriving at diagnosis.

2. Write briefly on the types of osteosarcoma and discuss the advantages & disadvantages of Plain radiography, Computed Tomography and Magnetic Resonance Imaging in the evaluation of a patient with osteosarcoma of the proximal tibia.

II. Write notes on: **(10 7 = 70)**

1. Hydrocephalus.
2. Imaging of Hepatomas.
3. Radiology of Haematuria management.
4. Optimizing the MRI exam for a patient with seizures.
5. Reticulonodular pattern in HRCT lung.
6. Platyspondyly.
7. Cardiac MRI.
8. Tarsal coalition.
9. Emergency CT chest: Triple rule out scan.
10. Interventional Radiology for MSK lesions.

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[LG 1516] **APRIL 2015** **Sub. Code: 3021**

DIPLOMA IN MEDICAL RADIODIAGNOSIS
(DMRD)

EXAMINATION

RADIO DIAGNOSIS INCLUDING NUCLEAR MEDICINE

Q.P. Code : 343021

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss in detail imaging features of common intraventricular tumours of brain.

2. Briefly discuss the imaging features of hepatocellular carcinoma with a note on the operability and role of interventional radiology in the management.

II. Write notes on: **(10 7 = 70)**

1. Thyroid Scintigraphy.
2. CT/X-ray findings of Aortic coarctation.
3. Multi detector CT evaluation of Renal Donor.
4. Barium enema findings of colonic polyps.
5. TRUS guided biopsy of prostate.
6. CT and MR features of Retinoblastoma.
7. MR features of Adherent placenta.
8. CT guided lung biopsy.
9. MR Arthrogram.
10. Intravascular Ultrasound.

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