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(LJ 1514) **OCTOBER 2016** **Sub. Code:3019**

DIPLOMA IN MEDICAL RADIO DIAGNOSIS (DMRD) EXAMINATION

MEDICAL RADIATION PHYSICS AS APPLIED TO RADIO DIAGNOSIS

Q.P.Code: 343019

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss the physics and principle of spiral CT, add a note on multi detector CT.
2. Write in detail about SPECT - Gamma Camera system.

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

1. MR contrast agents.
2. CT artefacts.
3. Physics of Doppler effect.
4. X-ray Mammography Equipment.
5. Characteristic curve of X-rays.
6. Physics of PET imaging.
7. Non-stochastic effects of Radiation.
8. Radiation protective devices and their lead equivalents.
9. Physics of Intensify screens.
10. Dark Room Plan of a Radiology Dept.

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(LJ 1515) **OCTOBER 2016** **Sub. Code:3020**

DIPLOMA IN MEDICAL RADIO DIAGNOSIS (DMRD) EXAMINATION

RADIO DIAGNOSIS AND IMAGING

Q.P.Code: 343020

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss the imaging algorithm for a patient with suspected lung mass.
Enumerate the features that suggest malignancy and favour operability.

2. Enumerate the differentials for a solid-and-cystic supratentorial mass. What are the different features that help in arriving at a diagnosis?

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

1. Radiographic anatomy of Retroperitonium.
2. Differentials of Unilateral proptosis.
3. Radiology of Idiopathic Pulmonary Fibrosis.
4. Imaging of Cerebral Ischemia.
5. Imaging of Thymus.
6. Imaging features of small bowel lymphoma.
7. Calcium score and its usefulness.
8. Ultrasound of hip joints in a neonate and infant.
9. Imaging of Thyroid nodule.
10. Modalities for Hepatobiliary imaging with their advantages.

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(LJ 1516) **OCTOBER 2016** **Sub. Code:3021**

DIPLOMA IN MEDICAL RADIO DIAGNOSIS (DMRD) EXAMINATION

RADIO DIAGNOSIS INCLUDING NUCLEAR MEDICINE

Q.P.Code: 343021

Time: Three Hours **Maximum: 100 Marks**

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

1. Discuss in detail the role of imaging in pancreatic neoplasms.
2. Discuss in detail the MR features of common intramedullary tumours in dorsal cord and conus.

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

1. Renal Scintigraphy.
2. Barium enema and CT findings of Ileocaecal tuberculosis.
3. Imaging of chest in HIV patients.
4. Imaging of Intra cranial Haemorrhage in Trauma.
5. Significance of first trimester scan (11-14 week).
6. Arnold Chiari malformation.
7. Ultrasound and upper gastro intestinal barium meal findings of Infantile hypertrophic pyloric stenosis.
8. Bronchial artery embolisation.
9. MRI findings in Rotator Cuff Injuries.
10. Common causes of soft tissue calcification and imaging findings.

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