(LL 1514) **OCTOBER 2017** **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. Describe the main components of MRI equipment. Enumerate the routine sequences used in MRI imaging and their significance.

2. Describe the principles of PET CT. Give an account of properties of the common radionuclides used and their clinical significance.

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

1. Discuss space charge effect.
2. Discuss heel effect.
3. Automatic film processor.
4. Rotating Anode.
5. What are the sequences used to study flowing blood by MRI? Briefly discuss advantages of each method.
6. Discuss the safety precautions to be taken during imaging of a pregnant or lactation woman in a radiodiagnostic department.
7. Classify contrast media related adverse reactions and briefly describe their management.
8. What is Dual energy CT? Compare it with regular CT technology.
9. Different ultrasound frequency probes.
10. Principles of molecular imaging.

DIPLOMA IN DIAGNOSIS (DMRD)

(LL 1515) **OCTOBER 2017** **Sub. Code:3020**

MEDICAL RADIO EXAMINATION

RADIO DIAGNOSIS AND IMAGING

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

1. Give an account of clinical presentation, classification, diagnosis and imaging features of Portal hypertension. Discuss the Radiologists role in management of portal hypertension.

2. Classify and give an account of imaging of Infratentorial tumours. Role of MR spectroscopy in intra cranial tumours.

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

1. Relevant anatomy and Imaging features of Mesial Temporal Sclerosis.
2. Briefly describe anatomy of the parotid gland and imaging features of parotid gland tumours.
3. Compare CT and MRI enteroclysis.
4. Renal artery stenosis – causes and imaging features with management.
5. Classification and imaging finding of Mullerian Duct Anomalies.
6. Classification, imaging findings and radiological management of Acute Pancreatitis.
7. Differential diagnosis and imaging of unilateral dilated ureter in an adult.
8. Cholangiocarcinoma.
9. Causes and patterns of calcification on digital mammograms.
10. Classification and imaging in Neurofibromatosis.

8.

9.

10.

DIPLOMA IN DIAGNOSIS (DMRD)

(LL 1516) OCTOBER 2017 Sub. Code:3021

RADIO DIAGNOSIS INCLUDING NUCLEAR MEDICINE

Q.P.Code: 343021

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

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

1. Classify mediastinal compartments and enumerate lesions arising from each. Give an account of your approach to differential diagnosis of mediastinal lesions.

2. Give an account of common isotopes used for bone scan. Enumerate the indications for Bone scan with findings. Briefly describe the imaging findings and causes of Superscan.

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

1. Tuberous sclerosis.

2. Clinical presentation, Imaging features and differential diagnosis of Multiple myeloma.

3. Role of radionuclides in cardiac imaging.

4. Multiple Endocrine Neoplasia syndromes.
5. Differential diagnosis and imaging of acute scrotal pain.
6. Imaging features of Bronchopulmonary Aspergillosis.
7. Causes and Imaging features of Antepartum Haemorrhage.
8. Imaging in Seronegative arthritis.
9. Causes and differential diagnosis of child with leukocoria. [White eye].
10. Intussusception evaluation.