**[LN 1018]** OCTOBER 2018 **Sub. Code: 1805**

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY EXAMS**
**FIRST YEAR**
**PAPER V – MODERN RADIOLOGICAL AND IMAGING EQUIPMENT**

***Q.P. Code : 281805***

**Time: Three hours** **Maximum : 100 Marks**

**I. Elaborate on:** **(2 x 20 = 40)**

1. Discuss in detail about MR enteroclysis and MR enterographic techniques, sequences and clinical uses.

2. Discuss principle, equipment, procedure and recent advances in pet imaging.

**II. Write notes on:** **(10 x 6 = 60)**

1. Ct contrast reactions and its management.
2. MRI artifacts.
3. Basic principle of MRI.
4. Virtual bronchoscopy.
5. Explain MPR, MIP and MINIP.
6. Patient preparation and procedure and post processing techniques in pulmonary angiogram.
7. Discuss PACS system.
8. DSA-equipment, principle and applications.
9. Types of modern X ray tubes.
10. MR spectroscopy principle.

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**[LO 0519]** MAY 2019 **Sub. Code: 1805**

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY EXAMS**
**FIRST YEAR**
**PAPER V – MODERN RADIOLOGICAL AND IMAGING EQUIPMENT**

***Q.P. Code : 281805***

**Time: Three hours** **Maximum : 100 Marks**

**I. Elaborate on:** **(2 x 20 = 40)**

1. Discuss in detail about Magnetic Resonance Cholangio Pancreatography (MRCP), indications, preparations, techniques and clinical uses.

2. Elaborate on basic principle of Ultrasound. Various types of Transducers. Describe in detail about image formation in Ultrasonography.

**II. Write notes on:** **(10 x 6 = 60)**

1. DEXA - Scan.
2. Doppler imaging principle and applications.
3. Technique of MR perfusion.
4. Ultrasound image artifacts.
5. Various types of MRI artifacts and its remedies.
6. SPECT CT – principle and applications.
7. Metal artifacts reduction techniques in MRI.
8. Stitch radiography and application.
9. CT Fluroscopy - principles.
10. Various generations of CT.

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**[LP 1019]** OCTOBER 2019 **Sub. Code: 1805**

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY EXAMS**
**FIRST YEAR**
**PAPER V – MODERN RADIOLOGICAL AND IMAGING EQUIPMENT**

***Q.P. Code : 281805***

**Time: Three hours** **Maximum : 100 Marks**

**I. Elaborate on:** **(2 x 20 = 40)**

1. Classify various MRI pulse sequences. Discuss in detail about various types of MRI PERFUSION sequences, techniques and application.

2. Discuss in detail about the technique, preparation, application of CT Cisternogram and its advantages.

**II. Write notes on:** **(10 x 6 = 60)**

1. Techniques of Ultrasound Elastography and its applications.
2. BOLD imaging.
3. HIFU – Principles and clinical uses.
4. DSA – Principle and application.
5. Tomosynthesis - technique.
6. Contrast agents used in MRI.
7. Virtual Bronchoscopy.
8. Principle and technique of dual energy CT.
9. Modern X-ray tube and its applications.
10. T2 Relaxometry.

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**[LQ 1019]** NOVEMBER 2020 **Sub. Code: 1805**

(MAY 2020 EXAM SESSION)

**M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY**

**FIRST YEAR**

**PAPER IV – MODERN RADIOLOGICAL AND IMAGING EQUIPMENT**

***Q.P. Code : 281805***

**Time: Three hours** **Maximum : 100 Marks**

**I. Elaborate on:** **(2 x 20 = 40)**

1. Discuss in detail about MRCP principle, technique, sequences and clinical uses.
2. Discuss principle, equipment and recent advances in Ultrasound.

**II. Write notes on:** **(10 x 6 = 60)**

1. Virtual Bronchoscopy & Colonoscopy.
2. Discuss about PACS.
3. Patient preparation and procedure and post processing techniques in Peripheral Angiogram.
4. DSA-equipment, principle and applications.
5. MRI pulse sequences.
6. Tomosynthesis – Technique.
7. Contrast agents used in MRI.
8. CT artefacts.
9. Write about IITV and recent advance.
10. CT Interventional procedures.

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