

June-2023,

# **BLDE (DEEMED TO BE UNIVERSITY)**

## **B.Sc. Medical Imaging Technology**

[Time: 3 Hours]

[Max. Marks: 80]

### **IV SEMESTER**

### **PAPER - I (Physics & Medical imaging II)**

**QP CODE: (8425)**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### **Long Questions**

**10X1 = 10 Marks**

1. Describe the main magnet and what are the developments in the MRI scanners took place.

#### **Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. What are the parameters which governs the Image contrast in MRI
3. In SE sequences which factors affects the image contrast
4. What is CCD
5. What is Relaxation? How many types of relaxations are there?
6. Why Hydrogen atom is good element for MRI scanning
7. How does the EBCT machine works?
8. What is color Doppler Principle?
9. What is TR, TE, Matrix, Pixel and Voxel?
10. What is HF No. or CT number is calculated.

#### **Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. What is Lamoure frequency
12. PACS
13. What Image Intensifier tube.
14. What is the purpose of Helium in Superconductors?
15. What is gray level, and how much is the matrix used in CT digital imaging.
16. Construction of the Probe.
17. What is A- mode Display and what are the features of it and its applications.
18. What is flat panel? Where it is used?
19. ALARA
20. What is the function of RF coil?
21. TLD

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### **IV SEMESTER**

### **PAPER - II (Radiographics techniques II)**

**QP CODE: (8426)**

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### **Long Questions**

**10X1 = 10 Marks**

1. Describe the various radiographic methods to demonstrate paranasal sinuses

#### **Short Essays: (Any – 8)**

**5 X 8 = 40 Marks**

2. Foot AP view
3. Sacro iliac joint
4. Cervical spine AP
5. Mandible AP
6. Skull lateral
7. Skyline view
8. Sacrum AP
9. Intercondylar view
10. Chest lateral

#### **Short Answers: (Any – 10)**

**3 X 10 = 30 Marks**

11. Name the various views in the submento vertical x-ray
12. Difference between chest AP and chest PA
13. Name the skull bones
14. Explain 10 day rule
15. Explain calcaneum axial view
16. Explain ball catchers view
17. Name the indications for chest decubitus x-ray view
18. Explain hand oblique view
19. Write a note on scaphoid ulnar deviation
20. Uses of mammography
21. Full form of mas,ma,kvp

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### IV SEMESTER

### PAPER - III (Digital Imaging)

QP CODE: (8427)

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

### Long Questions

10X1 = 10 Marks

1. Write in detail about networking.

### Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Tele radiology, its pros and cons.
3. Write a note on image processing.
4. Compare WAN & MAN.
5. Describe magnetic domain theory.
6. Describe workstation components.
7. Write a note on electronic patient record.
8. Write short note on digital imaging and dose.
9. Short notes on rights of access for researcher.
10. Write short note on binary code.

### Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Interfacing.
12. What is DICOM format.
13. Image file.
14. Note on viruses.
15. LAN.
16. What is image representation?
17. Rights of access for staff.
18. Data transfer.
19. RIS.
20. What is compression?
21. HIS.

July-2023.

# BLDE (DEEMED TO BE UNIVERSITY)

## B.Sc. Medical Imaging Technology

[Time: 3 Hours]

[Max. Marks: 80]

### IV SEMESTER

### PAPER - IV (MIUT Directed Clinical Education II)

QP CODE: (8428)

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

#### Long Questions

10X1 = 10 Marks

1. What are the ethics of medical practice – radiography professionalism?

#### Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. What are the general preliminaries to the moving chair and stretcher patient examination?
3. Write about the patient preparation before CT scan.
4. What is trolley layout in a fluoroscopic room during barium meal procedure?
5. Write the preparation of patient in bronchography examination.
6. Patient preparation for MRI brain scan.
7. What are the identifications of medico legal case?
8. Methods of measuring blood pressure.
9. Methods administration of oxygen.
10. What is preparation of CECT patient?

#### Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. How to handle the pregnant women.
12. Define pulse and its normal value.
13. What are the communicable diseases?
14. What is fluoroscopy?
15. How to handle pediatric patient.
16. Write about cardiac stimulation.
17. What is consent and write components of consent.
18. Who to handle trauma patient.
19. Explain Ten-Day rule.
20. Write the uses of gonad shield.
21. What are the equipments for emergencies?